## 1986 IUCN Red List of Threatened Animals



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### 1986 IUCN RED LIST OF THREATENED ANIMALS

Prepared by

The IUCN Conservation Monitoring Centre Cambridge U.K.

IUCN (International Union for Conservation of Nature and Natural Resources) is a network of governments, nongovernmental organizations (NGOs), scientists and other conservation experts, joined together to promote the protection and sustainable use of living resources

Founded in 1948, IUCN has more than 500 member governments and NGOs in over 116 countries. Its six Commissions consist of more than 2000 experts on threatened species, protected areas, ecology, environmental planning, environmental policy, law and administration, and environmental education.

IUCN monitors the status of ecosystems and species throughout the world; plans conservation action, both at strategic level through the World Conservation Strategy and at the programme level through its programme of conservation for sustainable development; promotes such action by governments, inter-governmental bodies and nongovernmental organisations; and provides the assistance and advice necessary to achieve such action.

THE IUCN CONSERVATION MONITORING CENTRE is the division of the Union that provides a data service to IUCN and to the conservation and development community. CMC is building an integrated and cross-referenced database on animals and plants of conservation concern, on wildlife trade, and on ecosystems (principally protected areas so far). The CMC produces a wide variety of specialist outputs and analyses, as well as major publications such as Red Data Books and Protected Area Directories. Other IUCN Centres focus on Environmental Law, and Conservation for Development. Collectively this information and expertise is used to assist IUCN members to prepare conservation programmes, and to provide information and advice to the conservation and development communities. Should you wish to consult these services please contact the:

IUCN Secretariat, World Conservation Centre Ave du Mont Blanc, CH-1196 Gland, Switzerland

The designations of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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### PREAMBLE

The strength of the species conservation argument is dependent on the scientific knowledge available, and the Red Data Books provide us all with a tool to be used for a restricted number of well known species or cases.

It is hoped, with this Threatened Species List, that the huge hidden information base held at the IUCN Conservation Monitoring Centre may be exposed to a wider audience. There is, of course, an inherent problem with any data base of any quality and size; everybody wants access to it instantly, but the reality is that all this hard won information has got to be distilled, manipulated and reproduced in a particular format for any user.

This takes time and time is money, so by exposing the data base one is apparently issuing an invitation to use it, whereas I think we should all be aware that to use it means we have to find the money to pay for its use. It cannot be provided for free!

The great skills of the staff and the huge network of specialists from which the data is acquired, many of whom are members of the Specialist Groups of the Species Survival Commission, are actually worth paying for, painful as this concept might be.

It was with great pleasure that World Wildlife Fund UK agreed to pay for the publication of this species list, to show what the data base holds and, to show the status of the species held, which in itself is of value to a whole range of users.

As one reviews, during this 25th Anniversary Year of the World Wildlife Fund, what has been accomplished in species conservation, it must be said that whilst we have done well in creating an extensive information base, we are sadly still very far away from being in a position to have plans and programmes to ensure the wise management of all these threatened species. Our success in the field and 'in captivity' sometimes obscures this reality!

The reality, in fact, shows the need for greater and more vigorous action but, having said this, I believe we should congratulate the team at the Conservation Monitoring Centre for their sterling effort in the battle for species conservation.

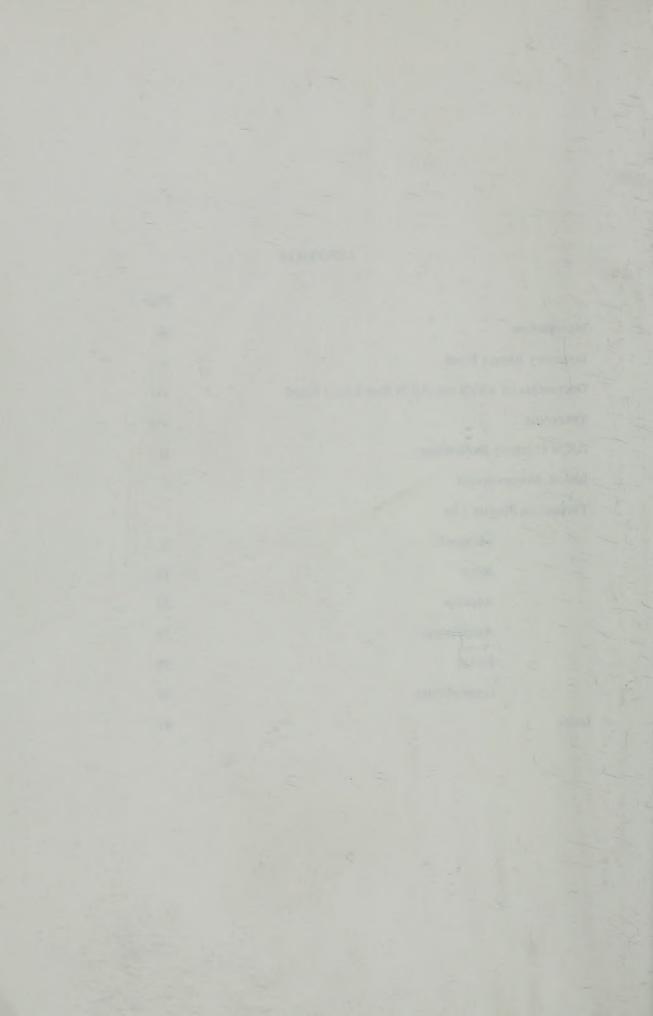
Grenville Ll. Lucas.

Chairman, Species Survival Commission, IUCN

28th August, 1986

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### Introduction

IUCN has long been known for the compilation of a series of Red Data Books, authoritative international inventories of threatened species. In recent years the Red Data Books have changed in format from the original loose-leaf style which allowed for frequent update of species accounts, to that of bound volumes. In addition, some books have become regional rather than global in approach, e.g. Threatened Birds of Africa and Related Islands. As a result, a list of internationally threatened species has not been readily available from IUCN for some years. This publication has been prepared in response to the increasing demand for such a list, from scientists, educationalists, zoos, the media, and conservation organisations. It is intended that new editions of the list will be published periodically.

The Red Data Book concept, originated by Sir Peter Scott in the mid-1960s, aimed to focus attention on the plight of the earth's vanishing wildlife. The concept has been immensely successful and, two decades later, many national and regional Red Data Books have been published; and many more countries are in the process of compiling their own threatened species lists. National and regional compilations are always likely to be more detailed than the international overview provided by IUCN. Increasingly therefore, IUCN's role will be to provide pointers to the availability of such data sources. Where these exist, IUCN will not duplicate the detailed information they contain, but will list any identified globally threatened taxa on its international list. For example, Australia has in recent years produced several texts detailing the status of its native species. IUCN will include all the relevant threatened Australian species on the international list but will not give high priority to the compilation of detailed data sheets for Australian taxa.

The next generation of Red Data Books prepared by IUCN will thus tend to be shorter, more specific publications highlighting the conservation problems of a group of species, perhaps even a single species, or an area. Such shorter compilations will allow for faster dissemination of conservation data, and will be more responsive to the changing priorities and needs of conservation. Complementing these, the periodic publication of the IUCN list of internationally threatened species will provide an index to the species data held by IUCN.

IUCN's threatened species list is compiled and maintained by the IUCN Conservation Monitoring Centre. For each threatened taxon, the list provides the scientific name, English vernacular name (where known), IUCN category (for definitions see page ix), and a brief description of the animal's distribution. This is followed by an index to the list based on the order, family and generic listing. Vernacular names for major groupings such as monkeys, parrots, and butterflies are also included.

Data upon which the listings are made are gathered from literature searches, and from correspondence with specialists around the world, including those belonging to the Specialist Groups of IUCN's Species Survival Commission.

The number of threatened animal taxa identified by IUCN is 3117, comprised of 385 mammals, 428 birds, 143 reptiles, 46 amphibians, 286 fishes, and 1829 invertebrates. These numbers, however, represent only those taxa whose threatened status has been brought to the attention of IUCN; many, many more taxa, particularly invertebrates are threatened, and going extinct every year unbeknownst to the scientific and conservation communities. Thus the number of threatened taxa identified by IUCN represents only the visible fraction of a much greater problem. The vertebrate listings are based almost entirely on the IUCN Red Data Books. For invertebrates, however, it must be stressed that the list is only provisional, since most species have not yet been subjected to the same review process as has been carried out for the vertebrate groups, apart from those listed in the IUCN Invertebrate Red Data Book and Swallowtail Butterfly Red Data Book. Other invertebrate listings have been taken from correspondence and a number of published sources (noted on page vii).

The threatened species list is constantly under review; as new areas or species groups are surveyed, species may be listed or delisted or categories may change. Since at any one time work is focused on a particular group of species, some parts of the list are more up to date than others. For example, a review of the conservation status of the birds of Africa and related islands was undertaken by IUCN and ICBP (the International Council for Bird Preservation) between 1982 and 1985, leading to the publication of the Bird Red Data Book for Africa. Work is now in progress to assess the conservation status of the birds of the Americas. Information on Asian birds has not therefore been reviewed for some time (although files and correspondence are maintained), and so changes are undoubtedly required.

The need for new information is thus continuous and assistance in providing accurate data always welcome. An inventory report form is detailed on page v and is a guide to the information required by IUCN to assess the international conservation status of a species.

The present list undoubtedly includes a number of errors and omissions, but it is to be hoped that these will stimulate people to send new information to:-

The Species Conservation Monitoring Unit IUCN Conservation Monitoring Centre 219c Huntingdon Road Cambridge CB3 ODL United Kingdom

### INVENTORY REPORT FORM

Report to be mailed to SCMU, IUCN Conservation Monitoring Centre, 219(c) Huntingdon Rd, Cambridge, CB3 ODL, U.K.

- 1. Country
- 2. Date
- 3. Reporter Name:

Address:

4. Taxon

Scientific Name:

Common Name:

5. Distribution

Present:

Former:

If possible, please include a map. Is present range preferred or enforced habitat?

6. Population

Estimated numbers in the wild. Indicate date of estimate and describe method of estimation. Are numbers increasing, decreasing or stable?

7. Habitat and Ecology

Biome type. Elevation range. Brief notes about social structure, feeding habits and diet, reproduction (gestation, breeding season, number of young, age of sexual maturation), longevity etc.

8. Scientific interest and potential value

Use in scientific or medical research; commercial value in trade or local economy.

9. Threats to Survival

Eg. habitat destruction, over-exploitation, hybridization, natural disasters, competition for food.

10. Conservation Measures Taken

Legal measures (international conventions, national laws); is law enforced? Protected areas - does it occur in national parks, reserves etc.? If so, please list. Management programmes or research programmes in progress.

### 11. Conservation Measures Proposed

Same as for 10, but measures that are needed for the conservation of the taxon.

### 12. Captive Breeding

Numbers in captivity. Does it breed readily in captivity? Where and when?

### 13. Remarks

Reference citations for description of animal. Comments about related taxa. If the above information concerns a subspecies then brief information should be given about the distribution and status of the species as a whole. Special acknowledgements etc.

### 14. References

Can be published papers, unpublished manuscripts, or references to correspondence (cited as In litt.).

### DOCUMENTS ON WHICH THE IUCN RED LIST IS BASED

The asterisk indicates books currently available from IUCN.

### Mammals

Goodwin, H.A. and Holloway, C.W. (1972). Red Data Book, Vol. 1 - Mammalia. Second Edition. IUCN, Morges. (Revisions: 1973 and 1974 by Goodwin, H.A. and Holloway, C.W.; 1976 by Fitter, R.S.R. and Holloway, C.W.; 1978 by Thornback, J.). Thornback, J. and Jenkins, M. (1982). Terrestrial Mammals. Part VII. In: Threatened Species of Wild Flora and Vertebrate Fauna. Report to the Commission of the European Communities. The Nature Conservancy Council, Great Britain.

Thornback, J. (1984). Wild Cattle, Bison and Buffaloes; their status and potential value. Report to UNEP. IUCN Conservation Monitoring Centre.

\*Thornback, J. and Jenkins, M. (1982). <u>The IUCN Mammal Red Data Book</u>. <u>Part 1.</u> <u>The Americas and Australasia</u>. IUCN, Gland.

### Birds

King, W.B. (1981). <u>Endangered Birds of the World. The ICBP Bird Red Data Book.</u> Smithsonian Institution Press and ICBP, Washington D.C.

\*Collar, N.J. and Stuart, S.N. (1985). <u>Threatened Birds of Africa and Related Islands.</u> <u>The ICBP/IUCN Red Data Book, Part 1.</u> Third Edition. ICBP and IUCN, Cambridge.

### Amphibians and Reptiles

\*Groombridge, B. (1982). <u>The IUCN Amphibia-Reptilia Red Data Book. Part 1, Testudines, Crocodylia, Rhynchocephalia.</u> IUCN, Gland.

Groombridge, B. (1982). Amphibians and Reptiles. Part IV. In: Threatened Species of Wild Flora and Vertebrate Fauna. Report to the Commission of the European Communities. The Nature Conservancy Council, Great Britain.

Honneger, R. (1975/1979). Red Data Book, Vol. 3 - Amphibia and Reptilia. Second Edition. IUCN, Gland.

### **Fishes**

\*Evans, D. (1981). Threatened Fish of Sri Lanka. IUCN Conservation Monitoring Centre, Cambridge.

Evans, D. and Almada-Villela, P. (Unpublished). Threatened Fishes of North America. Draft Document. IUCN Conservation Monitoring Centre.

Miller, R.R. (1977). Red Data Book, Vol. 4 - Pisces. Second Edition. IUCN, Morges. U.S. Department of the Interior (1986). Endangered and Threatened Wildlife and Plants. Federal Register 50 CFR 17.11 and 17.12: 1-30

### Invertebrates

\*Collins, N.M. and Morris, M.G. (1985). <u>Threatened Swallowtail Butterflies of the World. The IUCN Red Data Book.</u> IUCN, Gland and Cambridge.

Collins, N.M. and Wells, S.M. (1986). Insects and other Invertebrates as Candidates for the Berne Convention. A Report to the Council of Europe. IUCN Conservation Monitoring Centre.

U.S. Department of the Interior. (1984). Endangered and Threatened Wildlife and Plants; Review of Invertebrate Wildlife for Listing as Endangered or Threatened Species. <u>Federal Register</u> 49(100): 21664-21675.

\*Wells, S.M., Pyle, R.M. and Collins, N.M. (1983). The IUCN Invertebrate Red Data Book. IUCN, Gland.

### TAXONOMY

The systems of classification and nomenclature principally follow the undermentioned authors.

### Mammals

Cabrera, A. (1957-61). Catalogo de los mamiferos de America del Sur. Rev. del Mus. Argent. de Cienc. Nat. 'Bernardino Rivadavia' Cienc. Zool. 4(1,2): 1-732.

Corbet, G.B. and Hill, J.E. (1980). A World List of Mammalian Species. British Museum (Natural History) and Cornell University Press.

Hall, E.R. and Kelson, K.R. (1959). <u>The Mammals of North America.</u> Ronald Press Co., New York.

Honacki, J.H., Kinman, K.E. and Koeppl, J.W. (1982). <u>Mammal Species of the World:</u> a taxonomic and geographic reference. Allen Press Inc. and the Association of Systematics Collections, Kansas.

Meester, J. and Setzer, H.W. (Eds) (1971). <u>The Mammals of Africa: an Identification</u> Manual. Smithsonian Institution Press, City of Washington.

Ride, W.D.L. (1970). A Guide to the Native Mammals of Australia. Oxford University Press, Melbourne.

### **Birds**

Morony, J.J., Bock, W.J. and Farrand, J. (1975). <u>Reference List of the Birds of the World.</u> American Museum of Natural History, New York.

### Reptiles

Groombridge, B. (1983). World Checklist of Threatened Amphibians and Reptiles. Third Edition. Nature Conservancy Council, London.

Pritchard, P.C.H. (1979). <u>Encyclopaedia of Turtles.</u> T.F.H. Publications, New Jersey and Hong Kong.

Wermuth, H. and Mertens, R. (1977). Testudines, Crocodylia, Rhynchocephalia. <u>Das</u> <u>Tierreich</u> 100: 1-174.

### **Amphibians**

Groombridge, B. (1983). <u>World Checklist of Threatened Amphibians and Reptiles.</u> Third Edition. Nature Conservancy Council, London.

### Fishes

Nelson, J.S. (1984). <u>Fishes of the World.</u> Second Edition. John Wiley and Sons, New York, Chichester, Brisbane, Toronto, Singapore.

Robins, C.R., Bailey, R.M., Bond, C.E., Brooker, J.R., Lachner, E.A., Lea, R.N., Scott, W.B. (1980). A List of Common and Scientific Names of Fishes from the United States and Canada. Fourth Edition. American Fisheries Society Special Publication No. 12.

### Invertebrates

Hancock, D.L. (1983). Classification of the Papilionidae (Lepidoptera): a phylogenetic approach. Smithersia 2: 1-48.

Parker, S.B. (1982). Synopsis and Classification of Living Organisms. McGraw-Hill, New York.

### IUCN THREATENED SPECIES CATEGORIES

Species identified as threatened by IUCN are assigned a category indicating the degree of threat. Definitions are as follows:

### EXTINCT (Ex)

Species not definitely located in the wild during the past 50 years (criterion as used by the Convention on International Trade in Endangered Species of Wild Fauna and Flora).

N.B. On a few occasions, the category Ex? has been assigned; this denotes that it is virtually certain that the taxon has recently become extinct.

### ENDANGERED (E)

Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.

Included are taxa whose numbers have been reduced to a critical level or whose habitats have been so drastically reduced that they are deemed to be in immediate danger of extinction. Also included are taxa that may be extinct but have definitely been seen in the wild in the past 50 years.

### VULNERABLE (V)

Taxa believed likely to move into the 'Endangered' category in the near future if the causal factors continue operating.

Included are taxa of which most or all the populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously depleted and whose ultimate security has not yet been assured; and taxa with populations that are still abundant but are under threat from severe adverse factors throughout their range.

N.B. In practice, 'Endangered' and 'Vulnerable' categories may include, temporarily, taxa whose populations are beginning to recover as a result of remedial action, but whose recovery is insufficient to justify their transfer to another category.

### RARE (R)

Taxa with small world populations that are not at present 'Endangered' or 'Vulnerable', but are at risk.

These taxa are usually localised within restricted geographical areas or habitats or are thinly scattered over a more extensive range.

### INDETERMINATE (I)

Taxa known to be 'Endangered', 'Vulnerable' or 'Rare' but where there is not enough information to say which of the three categories is appropriate.

### INSUFFICIENTLY KNOWN (K)

Taxa that are suspected but not definitely known to belong to any of the above categories, because of lack of information.

### THREATENED (T)

Threatened is a general term to denote species which are 'Endangered', 'Vulnerable', 'Rare', 'Indeterminate', or 'Insufficiently Known' and should not be confused with the use of the same term by the U.S. Office of Endangered Species. In this volume it is used to identify taxa comprised of several sub-taxa which have differing status categories.

### COMMERCIALLY THREATENED (CT)

Taxa not currently threatened with extinction, but most or all of whose populations are threatened as a sustainable commercial resource, or will become so, unless their exploitation is regulated.

This category applies only to taxa whose populations are assumed to be relatively large.

N.B. In practise, this category has only been used for marine species of commercial importance that are being overfished in several parts of their ranges.

### ABBREVIATIONS

Arch. Eq. Guinea F.R.G. I. Is 0. sp. U.A.E. U.K. U.S.A. U.S.S.R. 

Archipelago Equatorial Guinea Federal Republic of Germany Islands Ocean Unnamed species United Arab Emirates United Kingdom United States of America Union of Soviet Socialist Republics Former Distribution An important, introduced population

### 1986 IUCN RED LIST OF THREATENED SPECIES

# Phylum CHORDATA

## CLASS MAMMALIA

Order MONOTREMATA

Family Tachyglossidae	Long-beaked Echidna	>	New Guinea
Order MARSUPIALIA Family Macropodidae			
Bettongia Lesueur	Burrowing Bettong	~	Australia
ttongia penicillata	Brush-tailed Bettong	ш	Australia
Caloprymnus campestris	Desert Rat-kangaroo	-	Australia
Dendrolagus dorianus notatus	Doria's Tree-kangaroo	>	New Guinea
Dendrolagus goodfellowi shawmayeri	Goodfellow's Tree-kangaroo	>	Papua New Guinea
Dorcopsis atrata	Black Dorcopsis Wallaby	œ	Papua New Guinea
Dorcopsulus macleayi	Papuan Dorcopsis	œ	Papua New Guinea
agorchestes asomatus	Central Hare-wallaby	EX	[Australia]
اع	Rufous Hare-wallaby	œ	Australia
_agorchestes leporides	Eastern Hare-wallaby	EX	[Australia]
agostrophus fasciatus	Banded Hare-wallaby	œ	Australia
Macropus greyi	Toolache Wallaby	EX	[Australia]
Onychogalea fraenata	Bridled Nailtail Wallaby	ш	Australia
Onychogalea lunata	Crescent Nailtail Wallaby	EX	[Australia]
Petrogale sp. nov.	Proserpine Rock-wallaby	<b>c</b> c	Australia
Potorous longipes	Long-footed Potoroo	-	Australia
Potorous platyops	Broad-faced Potoroo	Ë	[Australia]
	Stein's Cuscus	œ (	New Guinea
	Woodlark Island Cuscus	~	Papua New Guinea
Phalanger rufoniger	Black-spotted Cuscus	œ	New Guinea
Family Petauridae Gymnobelideus Leadbeateri	Leadbeater's Possum	ш	Australia
Family Vombatidae	Northern Hairv-nosed Wombat	ш	Australia
		1	

[Australia] New Guinea Australia [Australia]	Australia [Australia]	Australia Australia Australia Australia Australia	Australia	[Australia]	Cuba Hispaniola	South Africa South Africa	Philippines	U.S.S.R. France, Portugal, Spain	South Africa, Zimbabwe
<u> </u>	шЖ		ш	ËX	யய	αш	>	>>	~
Pig-footed Bandicoot White-lipped Bandicoot Western Barred Bandicoot Desert Bandicoot	Greater Bilby Lesser Bilby	Dibbler Red-tailed Phascogale Julia Creek Dunnart Long-tailed Dunnart Sandhill Dunnart	Numbat	Thylacine	Cuban Solenodon Haitian Solenodon	Juliana's Golden Mole Giant Golden Mole	Mindanao Gymnure	Russian Desman Pyrenean Desman	Maquassie Musk Shrew
Family Peramelidae Chaeropus ecaudatus Echymipera clara Perameles bougainville Perameles eremiana	Family Thylacomyidae Macrotis lagotis Macrotis leucura	Family Dasyuridae Antechinus apicalis Phascogale calura Sminthopsis douglasi Sminthopsis longicaudata	Family Myrmecobiidae	Family Thylacinidae	Order INSECTIVORA Family Solenodontidae Solenodon cubanus Solenodon paradoxus	Family Chrysochloridae Amblysomus julianae Chrysospalax trevelyani	Family Erinaceidae	Family Talpidae Desmana moschata Galemys pyrenaicus	Family Soricidae

Order CHIROPTERA

V Marianas R Mauritius E Rodrigues E Guam	K Thailand	V Australia	E Singapore, Peninsula Malaysia	I U.S.A. I U.S.A. E U.S.A.		K Madagascar		K Madagascar	E Madagascar		_						K Madagascar	K Madagascar		I Madagascar
Marianas Flying Fox Mauritian Flying Fox Rodrigues Flying Fox Guam Flying Fox	Kitti's Hog-nosed Bat	Ghost Bat	Singapore Roundleaf Horseshoe Bat	Hawaiian Hoary Bat Grey Bat Indiana Bat Ozark Big-eared Bat Virginia Big-eared Bat		Cresy Cent   e   emile	Broad-nosed Gentle Lemur	Ring-tailed Lemur	Crowned Lemur Sclater's Lemur	Black Lemur	Mongoose Lemur	Red-bellied Lemur	Grey-backed Sportive Lemur	Milne-Edwards' Sportive Lemur	White-footed Sportive Lemur	Microdon (?) Sportive Lemur	Weasel Lemur	Red-tailed Sportive Lemur	Northern Sportive Lemur	Ruffed Lemur
Family Pteropodidae  Pteropus mariannus  Pteropus niger  Pteropus rodricensis  Pteropus tokudae	Family Craseonycteridae	Family Megadermatidae	Family Rhinolophidae	Family Vespertilionidae Lasiurus cinereus semotus Myotis grisescens Myotis sodalis Plecotus townsendii ingens Plecotus townsendii virginianus	Order PRIMATES	Family Lemuridae	Hapalemur simus	Lemur catta	Lemur macaco flavifrons		Lemur mongoz	Lemur rubriventer	Lepilemur dorsalis	Lepilemur edwardsi	Lepilemur leucopus	Lepilemur microdon	Lepilemur mustelinus		Lepilemur septentrionalis	Varecia variegata

E Madagascar K Madagascar K Madagascar	K Madagascar V Madagascar K Madagascar	E Madagascar	I Borneo E Philippines	I Bolivia, Brazil	I Belize, Guatemala, Mexico V South America		V Central America, Mexico	F Brazil	Brazil, Colombia,	Brazil,	V Brazil	Brazil		V South America E Costa Rica, Panama	R South America V Brazil E Brazil V Brazil	
Hairy-eared Dwarf Lemur Coquerel's Dwarf Lemur Fork-marked Lemur	Woolly Lemur Indris Diademed Sifaka Verreaux's Sifaka	Aye-aye	Bornean Tarsier Philippine Tarsier	Brown Howler Monkey	Guatemalan Black Howler Monkey Long-haired Spider Monkey	Brown-headed Spider Monkey	Geoffroy's Spider Monkey	Woolly Spider Monkey	Red & White Uakari	Black-headed Uakari	Masked (1t) White-nosed Saki	Southern Bearded Saki	Yellow-tailed Woolly Monkey	Woolly Monkey Central American Squirrel Monkey	Goeldi's Marmoset White Marmoset Buffy-tufted-ear Marmoset Buffy-headed Marmoset Tassel-eared Marmoset	
Family Cheirogaleidae Allocebus trichotis Microcebus coquereli Phaner furcifer	Family Indridae  Avahi laniger Indri indri Propithecus diadema Propithecus verreauxi	Family Daubentoniidae	Family Tarsiidae Tarsius bancanus borneanus Tarsius syrichta	Family Cebidae	Alouatta villosa Ateles belzebuth	Ateles fusciceps	Ateles geoffroyi	Brachyteles arachnoides	Cacajao calvus	Cacajao melanocephalus	Chiropotes albinasus	Chiropotes satanas satanas	Lagothrix flavicauda	<u>Lagothrix (agothricha</u> Saimiri oerstedi	Family Callitrichidae Callithrix argentata leucippe Callithrix aurita Callithrix flaviceps Callithrix flaviceps	

E Brazil E Brazil I Brazil, Peru I Bolivia, Brazil, Peru V Colombia E Colombia	K Congo, Zaire K Angola, Zaire K Angola, Zaire K West Africa V West Africa V Benin, Nigeria V Cameroon, Fernando Po, Nigeri K Wanda, Uganda, Zaire V Cameroon, Fernando Po, Nigeri K Zaire V Cameroon, Fernando Po, Nigeri K Zaire K Zaire K Congo K Zaire Congo K Zaire K Sudan, Zaire V West Africa K Congo K Zaire I Tanzania E Zanzibar K Sudan, Zaire V Mest Africa K East Africa K East Africa K Honado Po Cameroon K West Africa K East Africa K Borneo I Mentawai Is I India V Algeria, Gibraltar*, Morocco V Borneo Cameroon, Fernando Po, Niger Cameroon, Congo, Eq. Guinea, Cameroon, Congo, Eq. Guinea, Cameroon, Congo, Eq. Guinea, Cameroon, Congo, Eq. Guinea,	
Golden Lion Tamarin Golden-headed Lion Tamarin Golden-rumped Lion Tamarin Bare-faced Tamarin Emperor Tamarin White-footed Tamarin Cotton-top Tamarin	Allen's Swamp Monkey Black Mangabey Tana River Mangabey Collared Mangabey Diana Monkey Diana Monkey Dryas Guenon White-throated Guenon White-throated Guenon Owl-faced Guenon Owl-faced Guenon Culhoest's Monkey Preuss's Guenon Salongo Guenon Bay Colobus Foa Red Colobus Foa Red Colobus Pennant's Red Colobus Pennant's Red Colobus Pennant's Red Colobus Western Red Colobus Western Red Colobus Miss Waldron's Bay Colobus Black Colobus Miss Waldron's Bay Colobus Black Colobus Miss Waldron's Bay Colobus Black Colobus Miss Waldron's Bay Colobus Brack Colobus Brack Colobus Miss Waldron's Bay Colobus Brack Colobus Brack Colobus Drill	
Leontopithecus chrysomelas Leontopithecus chrysomelas Leontopithecus chrysopygus Saguinus bicolor Saguinus imperator Saguinus leucopus Saguinus oedipus oedipus	Family Cercopithecidae Allenopithecus nigroviridis Cercocebus aterrimus Cercocebus galeritus galeritus Cercopithecus diana Cercopithecus diana Cercopithecus diana Cercopithecus erythrogaster Cercopithecus erythrogaster Cercopithecus erythrogaster Cercopithecus preussi Cercopithecus salongo Colobus badius bouvieri Colobus badius pordonorum Colobus badius penanti Colobus badius penanti Colobus badius penanti Colobus badius penanti Colobus badius temminckii Colobus badius temminckii Colobus badius temminckii Colobus badius temminckii Colobus badius rufomitratus Colobus badius rufomitratus Colobus badius rufomitratus Colobus satanas Macaca pagensis Macaca silenus Macaca silenus Macaca silenus Masalis larvatus Papio leucophaeus Papio sphinx	

ria ria Gabon

Bhutan, India India Mentawai Is West Africa China, Laos, Vietnam	China Mentawai Is	China, Indochina Mentawai Is Indonesia Indochina, Thailand	Equatorial Africa Rwanda, Uganda, Zaire Zaire Equatorial Africa	Borneo, Sumatra Central & South America	Brazil	Argentina, Bolivia, Paraguay Argentina South America Brazil	[Sardinia, Corsica]	1 4
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Golden Langur Nilgiri Langur Mentawai Islands Langur Olive Colobus Douc Langur	Shub-nosed Langur Pig-tailed Langur	Black Gibbon Kloss's Gibbon Javan Gibbon Pileated Gibbon	Gorilla Mountain Gorilla Pygmy Chimpanzee Chimpanzee	Orang-utan Giant Anteater	Maned Sloth	Burmeister's Armadillo Pink Fairy Armadillo Giant Armadillo Brazilian Three-banded Armadillo	Sardinian Pika	
Presbytis geei Presbytis johni Presbytis potenziani Procolobus verus Pygathrix nemaeus	Simias concolor  Family Hylobatidae	Hylobates concolor Hylobates klossi Hylobates moloch Hylobates pileatus	Family Pongidae Gorilla gorilla Gorilla gorilla beringei Pan paniscus Pan troglodytes	Order EDENTATA Family Myrmecophagidae	Family Bradypodidae	Family Dasypodidae Clamyphorus retusus Chlamyphorus truncatus Priodontes giganteus Tolypeutes tricinctus	Order LAGOMORPHA Family Ochotonidae	

E South Africa E Himalayan foothills R Sumatra E Ryukyu Is E Mexico	V U.S.A. E Canada V U.S.S.R. E U.S.A. E U.S.A.	Ex [F.R.G.] E U.S.A.	I Philippines Ex [Australia] Ex [Australia] R Australia R U.S.A. Ex [Australia] K Australia] Ex [Australia] I U.S.A. Ex [Australia] I Australia I Australia I Australia I Australia I Australia	I Brazil
Riverine Rabbit Hispid Hare Sumatran Short-eared Rabbit Amami Rabbit Volcano Rabbit	Utah Prairie Dog Vancouver Island Marmot Menzbier's Marmot Delmarva Fox Squirrel Texas Kangaroo Rat Morro Bay Kangaroo Rat	Bavarian Pine Vole Salt-marsh Harvest Mouse	Luzon Forest Rat Rabbit-eared Tree-rat Lesser Stick-nest Rat Greater Stick-nest Rat Greater Stick-nest Rat Beach Vole Short-tailed Hopping-mouse Northern Hopping-mouse Long-tailed Hopping-mouse Big-eared Hopping-mouse Big-eared Hopping-mouse Silver Rice Rat Alice Springs Mouse Hastings River Mouse Shark Bay Mouse Ryukyu Spiny Rat False Water-rat Central Rock-rat	Thin-spined Porcupine
Family Leporidae  Bunolagus monticularis Caprolagus hispidus Nesolagus netscheri Pentalagus furnessi Romerolagus diazi	Order RODENTIA Family Sciuridae Cynomys parvidens Marmota vancouverensis Marmota menzbieri Sciurus niger cinereus Family Heteromyidae Dipodomys elator Dipodomys heermanni morroensis	Family Cricetidae  Pitymys bavaricus Reithrodontomys raviventris	Family Muridae  Batomys granti Conilurus albipes Leporillus apicalis Leporillus conditor Microtus breweri Notomys amplus Notomys aquilo Notomys aquilo Notomys macrotis Notomys macrotis Notomys mordax Oryzomys argentatus Pseudomys fieldi Pseudomys oralis Pseudomys oralis Pseudomys praeconis Tokudaia osimensis muenninki Xeromys myoides Zyzomys pedunculatus	Chaetomys subspinosus

I Andes I Chile	E Cuba I Cuba I Cuba I Cuba E Cuba I Jamaica R Bahamas I Hispaniola	E China E India, Pakistan	V Mexico	V Arctic, North Atlantic Ocean & North Pacific Ocean	E All Oceans V All Oceans E All Oceans	E Arctic Ocean E Temperate Seas
Short-tailed Chinchilla Long-tailed Chinchilla	Cabrera's Hutia Large-eared Hutia Garrido's Hutia Bushy-tailed Hutia Dwarf Hutia Little Earth Hutia Jamaican Hutia Bahamian Hutia	Beiji Dolphin Indus Dolphin	Vaquita	Northern Bottlenose Whale	Blue Whale Fin Whale Humpback Whale	Bowhead Whale Black Right Whale
Family Chinchillidae Chinchilla brevicaudata Chinchilla lanigera	Family Capromyidae Capromys angelcabrerai Capromys auritus Capromys garridoi Capromys melanurus Capromys sanfelipensis Geocapromys brownii Geocapromys ingrahami Plagiodontia aedium	Order CETACEA Family Platanistidae Lipotes vexillifer Platanista indi	Family Delphinidae	Family Ziphiidae	Family Balaenopteridae Balaenoptera musculus Balaenoptera physalus Megaptera novaeangliae	Family Balaenidae Balaena mysticetus Eubalaena glacialis

Order CARNIVORA

	K South America V North America, Middle East, Eurasia E U.S.A. E Ethiopia V South America V Asia Ex [Falkland Is] V Subsaharan Africa V South America	R China I India, Nepal, Sri Lanka E Iran, Pakistan V South America Ex [Mexico, U.S.A.] V Arctic	V Chile, Peru, [Argentina] V South America V Eurasia I Argentina, Chile E U.S.A. V South America	V Madagascar K Madagascar K Madagascar R Sulawesi E India	K Madagascar K Madagascar
	Small-eared Dog Grey Wolf Red Wolf Simien Fox Maned Wolf Dhole Falkland Island Wolf African Wild Dog Bush Dog	Giant Panda Sloth Bear Baluchistan Bear Spectacled Bear Mexican Grizzly Bear Polar Bear	Marine Otter La Plata Otter European Otter Southern River Otter Black-footed Ferret Giant Otter	Fossa Falanouc Malagasy Civet Celebes Giant Palm Civet Malabar Large Spotted Civet	Malagasy Broad-striped Mongoose Malagasy Brown-tailed Mongoose
Older Cities Calif	Family Canidae  Atelocynus microtis Canis lupus Canis simensis Chrysocyon brachyurus Cuon alpinus Dusicyon australis Lycaon pictus Speothos venaticus	Family Ursidae  Ailuropoda melanoleuca Melursus ursinus Selenarctos thibetanus Tremarctos ornatus Ursus arctos nelsoni Ursus maritimus	Family Mustelidae  Lutra felina Lutra longicaudis Lutra lutra lutra Lutra provocax Mustela nigripes Pteronura brasiliensis	Family Viverridae Cryptoprocta ferox Eupleres goudotii Fossa fossa Macrogalidia musschenbroeki	Family Herpestidae  Galidictis fasciata Salanoia concolor

V Southern Africa E Algeria, Morocco, Tunisia	V Africa, Middle East, Iran F Iran			I Asia V U.S.A., Central & South America E Portugal, Spain I South-east Asia I Asia	V Central & South America V Central & South America I U.S.A., Central & South America V Asia		V Chile V Mexico, U.S.A. K U.S.S.R. E Japan, North & South Korea	E Mediterranean & Mauritanian coasts E Hawaii Ex? [Caribbean]
Brown Hyaena Barbary Hyaena	Cheetah Asiatic Cheetah	Bornean Bay Cat Turkmenian Caracal Lynx	Florida Cougar Eastern Cougar Andean Cat Pakistan Sand Cat	Marbled Cat Ocelot Pardel Lynx Flat-headed Cat Asiatic Golden Cat	Little Spotted Cat Margay Jaguarundi Clouded Leopard	Asiatic Lion Jaguar Leopard Tiger Snow Leopard Iriomote Cat	Juan Fernandez Fur Seal Guadalupe Fur Seal Laptev Walrus Japanese Sea Lion	Mediterranean Monk Seal Hawaiian Monk Seal Caribbean Monk Seal
Family Hyaenidae Hyaena brunnea Hyaena hyaena barbara	Family Felidae  Acinonyx inbatus Acinonyx inbatus venatious		_, _,	Felis pardalis Felis pardina Felis planiceps Felis temmincki		Panthera leo persica Panthera onca Panthera pardus Panthera tigris Panthera uncia Prionailurus iriomotensis	Order PINNIPEDIA  Family Otariidae  Arctocephalus philippii  Arctocephalus townsendi  Odobenus rosmarus laptevi Zalophus californianus japonicus	Family Phocidae  Monachus monachus  Monachus schauinslandi  Monachus tropicalis

Asia Africa	Coastal Indian Ocean & Eastern Pacific Ocean	[Bering Sea, North Pacific Ocean]	Amazon basin Caribbean & South American Coasts & Rivers	West Africa	North Africa Ethiopia, Kenya, [Somalia] Asia Mesopotamia Pakistan [China, Mongolia] [South Africa] Angola, Namibia South Africa South-east Asia North-west South America South-east Asia South-east Asia Java India, Nepal	
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Asian Elephant African Elephant	pugong	Steller's Sea Cow	Amazonian Manatee Caribbean Manatee	West African Manatee	African Wild Ass Grevy's Zebra Asiatic Wild Ass Syrian Wild Ass Indian Wild Ass Przewalski's Horse Quagga Hartmann's Mountain Zebra Cape Mountain Zebra Central American Tapir Mountain Tapir Mountain Tapir Northern Square-lipped Rhinoceros Sumatran Rhinoceros Javan Rhinoceros Javan Rhinoceros	
Order PROBOSCIDEA Family Elephantidae Elephas maximus Loxodonta africana	Order SIRENIA Family Dugongidae	Hydrodamalis gigas	Family Trichechidae Trichechus inunguis Trichechus manatus	<u>Trichechus</u> <u>senegalensis</u>	Family Equidae  Equus africanus  Equus africanus  Equus hemionus  Equus hemionus hemippus  Equus hemionus khur  Equus hemionus khur  Equus przewalskii  Equus zebra hartmannae  Equus zebra hartmannae  Equus zebra artmannae  Family Tapiridae  Tapirus bairdii  Tapirus bairdii	

Sulawesi [Bangladesh], India, Nepal	Argentina, Bolivia, Paraguay	West Africa	China, Mongolia Andes	Philippines Bawean I. Central South America China India, Nepal Afghanistan, U.S.S.R. Algeria, Tunisia Icorsical, Sardinia India China China India South-east Asia China Ryukyu Is China Ryukyu Is China Nesopotamia North Andes South Andes South Andes
> ш	>	>	>>	
Babirusa Pygmy Hog	Chacoan Peccary	Pygmy Hippopotamus	Wild Bactrian Camel Vicuna	Calamian Deer Kuhl's Deer Marsh Deer Thorold's Deer Swamp Deer Bactrian Deer Bactrian Deer Corsican Red Deer Hangul M'Neill's Deer Shou Yarkand Deer Manipur Brow-antlered Deer Thailand Brow-antlered Deer Shansi Sika Ryukyu Sika South China Sika North China Sika Formosan Sika
Order ARTIODACTYLA Family Suidae Babyrousa babyrussa Sus salvanius	Family Tayassuidae	Family Hippopotamidae	Family Camelidae Camelus bactrianus Vicugna vicugna	Family Cervidae  Axis calamianensis  Axis kuhli Blastocerus dichotomus Cervus albirostris Cervus elaphus bactrianus Cervus elaphus bactrianus Cervus elaphus bactrianus Cervus elaphus macneilli Cervus elaphus macneilli Cervus elaphus wallichi Cervus elaphus wallichi Cervus eldi siamensis Cervus nippon grassianus Cervus nippon keramae Cervus nippon taiouanus Cervus nippon taiouanus Dama mesopotamica Hippocamelus antisensis Hippocamelus bisulcus Moschus chrysogaster (subspecies)

I China E Burma, Thailand R Mexico R U.S.A. E Argentina I Andes E Mexico E Mexico, U.S.A.	E Sahara/Sahel E Angola, Namibia E Ethiopia, Somalia E Egypt, Ethiopia, Sudan V Ethiopia, Somalia V Sahara/Sahel V South-east Asia E Central Asia	E Indochina E India, Nepal E Sulawesi E Philippines E Sulawesi R China I China V West Himalayas	E Afghanistan, Pakistan E Spain E Ethiopia E Sumatra V Kenya, Tanzania, Zanzibar I Ivory Coast, Liberia X Tanzania I Ivory Coast, Liberia, Sierr V South Africa K Kenya, Somalia, Tanzania K Djibouti, Ethiopia, Somalia
Black Muntjac Fea's Muntjac Cedros Island Mule Deer Key Deer Argentinian Pampas Deer Northern Pudu Lower California Pronghorn Sonoran Pronghorn	Addax Black-faced Impala Swayne's Hartebeest Tora Hartebeest Dibatag Barbary Sheep Gaur Wild Yak	Kouprey Wild Asiatic Water Buffalo Lowland Anoa Tamaraw Mountain Anoa Golden Takin Szechwan Takin	Straight-horned Markhor Pyrenean Ibex Walia Ibex Sumatran Serow Ader's Duiker Jentink's Duiker Abbott's Duiker Zebra Duiker Zebra Duiker Hunter's Antelope Beira Antelope
Muntiacus feae Odocoileus hemionus cerrosensis Odocoileus virginianus clavium Ozotoceros bezoarticus celer Pudu mephistophiles  Family Antilocapra americana peninsularis Antilocapra americana sonoriensis	Family Bovidae  Addax nasomaculatus Aepyceros melampus petersi Alcelaphus buselaphus swaynei Alcelaphus buselaphus tora Ammodorcas clarkei Ammotragus lervia Bos gaurus Bos gaurus Bos javanicus	Bos sauveli Bubalus bubalis Bubalus depressicornis Bubalus mindorensis Bubalus quarlesi Budorcas taxicolor bedfordi Budorcas taxicolor tibetana Capra falconeri	Capra falconeri megaceros Capra pyrenaica pyrenaica Capra walie Capricornis sumatraensis sumatraensis Cephalophus adersi Cephalophus jentinki Cephalophus spadix Cephalophus zebra Damaliscus dorcas dorcas Damaliscus hunteri Dorcatragus megalotis

ra Leone

North-west Africa Sahara/Sahel Sahara/Sahel Arabia, Middle East Sahara/Sahel Senegal to Eritrea North-eastern Africa Somalia, Ethiopia Arabia India Oman, U.A.E. [South Africa] Angola Southern Africa Zanzibar Sahara/Sahel Arabia, Middle East Sardinia, Corsica, Cyprus Albania, Bulgaria, Greece, Yugoslavia France Italy West Africa	Eastern Andes Colombia Brazil [Colombia] Argentina Peru
$^{m>\pi>>>\times}$	m ∺m xxxx
Cuvier's Gazelle Dama Gazelle Dorcas Gazelle Slender-horned Gazelle Slender-horned Gazelle Soemmerring's Gazelle Speke's Gazelle Speke's Gazelle Speke's Gazelle Speke's Gazelle Speke's Gazelle Speke's Gazelle Saudi Goitred Gazelle Nilgiri Tahr Arabian Tahr Bluebuck Giant Sable Antelope Lechwe Zanzibar Suni Scimitar-horned Oryx Arabian Oryx Mediterranean Mouflon Balkan Chamois Chartreuse Chamois Abruzzo Chamois	Puna Rhea Magdalena Tinamou Pernambuco Solitary Tinamou Colombian Grebe Hooded Grebe Junin Grebe
Gazella dama Gazella dorcas massaesyla Gazella dorcas massaesyla Gazella leptoceros Gazella rufifrons Gazella soemmerringi Gazella spekei Gazella subgutturosa marica Hemitragus hylocrius Hemitragus hylocrius Hemitragus leucophaeus Hippotragus niger variani Kobus leche Neotragus moschatus moschatus Oryx dammah Oryx leucoryx Ovis ammon musimon Rupicapra rupicapra cartusiana Rupicapra rupicapra cartusiana Rupicapra rupicapra ornata Taurotragus derbianus derbianus	CLASS AVES  Order RHEIFORMES Family Rheidae Pterocnemia pennata tarapacensis Order TINAMIFORMES Family Tinamidae Crypturellus saltuarius Tinamus solitarius pernambucensis Order PODICIPEDIFORMES Family Podicipedidae Podiceps andinus Podiceps andinus Podiceps andinus Podiceps gallardoi

Guatemala Madagascar Madagascar	Japan Amsterdam I.	Galapagos Is, New Zealand, South America	New Zealand, Australia Reunion, Rodrigues Chatham Is	New Zealand, North & South America Desertas (Madeira), Cape Verde Is	Haiti New Zealand, Australia	Fiji Chatham Is Madeira Hawaii, Galapagos Is, Central & South America	Solomon Is New Britain Hawaii	South-east Europe, U.S.S.R., China	Christmas I. (Indian O.)	Galapagos Is New Zealand	Christmas I. (Indian O.) Ascension I.
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Atitlan Grebe Madagascar Little Grebe Alaotra Grebe	Short-tailed Albatross Amsterdam Albatross	Black Petrel	Westland Black Petrel Mascarene Petrel Chatham Island Petrel	New Zealand Cook's Petrel	Black-capped Petrel Gould's Petrel	Macgillivray's Petrel Magenta Petrel Freira Dark-rumped Petrel	Beck's Petrel Heinroth's Shearwater Newell's Shearwater	Dalmatian Pelican	Abbott's Booby	Galapagos Flightless Cormorant King Shag	Christmas Frigatebird Ascension Frigatebird
Podilymbus gigas Tachybaptus pelzelnii Tachybaptus rufolavatus	Order PROCELLARIIFORMES Family Diomedeidae  Diomedea albatrus Diomedea amsterdamensis	Family Procellariidae		Pterodroma cookii cookii		1 -1 -1 -1 -1	Pterodroma rostrata becki Puffinus heinrothi Puffinus puffinus newelli	Order PELECANIFORMES Family Pelecanidae Pelecanus crispus	Family Sulidae	Family Phalacrocoracidae Nannopterum harrisi Phalacrocorax c. carunculatus	Fregatia andrewsi Fregatia

Madagascar, Comoro Is China, South-east Asia Southern Africa Argentina, Brazil	Eastern Palearctic Indonesia, Malaysia South-east Asia	Sao Tome South Africa South Europe, Middle East, North	Japan, China, Korea South-east Asia South-east Asia Seychelles	New Zealand Madagascar Hawaii Marianas Hawaii U.S.A., Mexico Hawaii India, South-east Asia South America, Falkland Is West Indies Argentina, Brazil Siberia, China North-west South America
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Madagascar Heron Chinese Egret Slaty Egret Fasciated Tiger-heron	Oriental White Stork Storm's Stork Milky Stork	Dwarf Olive Ibis Southern Bald Ibis Northern Bald Ibis	Japanese Crested Ibis White-shouldered Ibis Giant Ibis Aldabra Sacred Ibis	New Zealand Brown Teal Madagascar Teal Laysan Duck Marianas Mallard Koloa Tule White-fronted Goose Madagascar Pochard Aleutian Canada Goose Nene White-winged Wood Duck Ruddy-headed Goose West Indian Whistling Duck Brazilian Merganser Chinese Merganser South American Pochard
Order CICONIIFORMES Family Ardeidae Ardea humbloti Egretta eulophotes Egretta vinaceigula Tigrisoma fasciatum	Family Ciconidae Ciconia (ciconia) boyciana Ciconia episcopus stormi	Family Threskiornithidae  Bostrychia bocagei Geronticus calvus Geronticus eremita	Nipponia nippon Pseudibis davisoni Thaumatibis gigantea Threskiornis aethiopica abbotti	Order ANSERIFORMES Family Anatidae Anas aucklandica Anas bernieri Anas laysanensis Aythya innotata Branta sandvicensis Cairina scutulata Chloephaga rubidiceps Dendrocygna arborea Mergus octosetaceus Mergus squamatus Netta erythrophthalma erythrophthalma

Order FALCONIFORMES

E California	R Christmas I. (Indian O.)	E Comoro Is	R Cuba	R Puerto Rico	E Spain, Portugal	R Galapagos Is	R Puerto Rico	R Hawaii	E Grenada	R Cuba	E Madagascar	R Southern Africa	V Palearctic	E U.S.A., Mexico	E Madagascar	R Central & South America	I Ecuador	I South America	R Central & South America	E Philippines	R U.S.A., Cuba			V Worldwide	E Mauritius			V Indonesia R Marianas & Palau Is	
California Condor	Christmas Brown Goshawk	Anjouan Sparrowhawk	Cuban Sharp-shinned Hawk	Puerto Rican Sharp-shinned Hawk	Spanish Imperial Eagle	Galapagos Hawk	Puerto Rican Broad-winged Hawk	Hawaiian Hawk	Grenada Hook-billed Kite	Cuban Hook-billed Kite	Madagascar Serpent Eagle	Cape Vulture	White-tailed Eagle		Madagascar Fish Eagle	Harpy Eagle	Grey-backed Hawk	Mantied Hawk	Crested Eagle	Philippines Eagle	Florida Everglade Kite		Aldabra Kestrel	Peregrine Falcon	Mauritius Kestrel			Maleo Micronesian Megabode	
Family Cathartidae  Gymnogyps californianus	Family Accipitridae	Accipiter francesii pusillus	Accipiter striatus fringilloides	Accipiter striatus venator	Aquila adalberti	Buteo galapagoensis	Buteo platypterus brunnescens	Buteo solitarius	Chondrohierax uncinatus mirus	Chondrohierax uncinatus wilsonii		Gvos coprotheres	Haliaeetus albicilla	Haliaeetus leucocephalus leucocephalus	Haliaeetus vociferoides	Harbia harbvia	Leucopternis occidentalis	Leucopternis polionota	Morphnus quianensis	Pithecophaga ieffervi	Rostrhamus sociabilis plumbeus	Family Falconidae	Falco newtoni aldabranus	Falco peregrinus	Falco punctatus	Order GALLIFORMES	Family Megapodiidae	Macrocephalon maleo	con cade con nodeRall

E South America V Colombia E Brazil I Brazil E Brazil R Mexico E Guatemala, Mexico E Honduras E Peru E Colombia	E West Africa Nepal, Pakistan, India E U.S.A., Mexico V India, Burma, China C China C Cameroon Uganda, Zaire E Djibouti I Angola C China Southern Asia N Laos, Vietnam V Taiwan C Colombia V South-east Asia E Italy V Philippines I Italy V Philippines C China C China N India, Burma E China I India, Bhutan, India, Burma I Ibet, Bhutan, India E India, Pakistan N So.A.
Black-fronted Piping Guan Blue-billed Curassow Red-billed Curassow Northern Bare-faced Curassow Eastern Razor-billed Curassow Cozumel Curassow Horned Guan Utila Chachalaca White-winged Guan Cauca Guan	White-breasted Guineafowl Cheer Pheasant Masked Bobwhite Quail White Eared Pheasant Brown Eared Pheasant Mount Cameroon Francolin Djibouti Francolin Swierstra's Francolin Chinese Monal Sclater's Monal Bulwer's Wattled Pheasant Edward's Pheasant Imperial Pheasant Swinhoe's Pheasant Gorgeted Wood Quail Green Peafowl Italian Grey Partridge Palawan Peacock Pheasant Crested Argus Pheasant Elliot's Pheasant Klume's Bar-tailed Pheasant Crested Argus Pheasant Klume's Bar-tailed Pheasant Mikado Pheasant Cantabrian Capercaillie Blyth's Tragopan Cabot's Tragopan Gabot's Tragopan Western Tragopan Attwater's Prairie Chicken
Family Cracidae  Aburria jacutinga Crax alberti Crax blumenbachii Crax fasciolata pinima Crax rubra griscomi Oreophasis derbianus Ortalis vetula deschauenseei Penelope albipennis Penelope perspicax Pipile pipile	Agelastes melagrides  Gatreus Mallichii  Colinus Virginianus ridgwayi  Crossoptilon mantchuricum  Francolinus camerunensis  Francolinus ochropectus  Francolinus swierstrai  Lophophorus lhuysii  Lophorua bulweri  Lophorua bulweri  Lophorua swinhoii  Odontophorus strophium  Pavo muticus  Perdix perdix italica  Perdix perdix italica  Polyplectron emphanum  Rheinardia ocellata  Syrmaticus mikado  Ietrao urogallus cantabricus  Iragopan ablythii  Iragopan caboti  Iragopan melanocephalus  Iympanuchus cupido attwateri
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Salva Calling "F"			
Family Mesitornithidae  Mesitornis unicolor	Brown Mesite White-breasted Mesite	⊻ α	Madagascar
Monias benschi	Subdesert Mesite	e oc	Madagascar
		ı	
Grus americana	Whooping Crane	ם ת	Canada, U.S.A.
canadensis	Mississippi Sandhill Crane	e w	U.S.A.
iaponensis	Japanese Crane	>	East Asia
٠.	Siberian White Crane	ш	Central & East Asia
	Hooded Crane	>	East Asia
	Black-necked Crane	-	East Asia
Grus Vipio	White-naped Crane	>	East Asia
Family Rallidae			
Amaurornis olivieri	Sakalava Rail	¥	Madagascar
Atlantisia rogersi	Inaccessible Rail	<b>e</b>	Tristan da Cunha
Coturnicops noveboracensis goldmani	Goldman's Yellow Rail	-	Mexico
Cyanolimnas cerverai	Zapata Rail	œ	Cuba
Oryolimnas cuvieri aldabranus	Aldabra White-throated Rail	~	Seychelles
Fulica americana alai	Hawaijan Coot	~	Намаії
Fulica cornuta	Horned Coot	~	Argentina, Bolivia, Chile
Gallinula chloropus guami	Marianas Gallinule	œ	Marianas
Gallinula chloropus sandvicensis	Hawaiian Gallinule	ш	Намаії
Gallinula comeri	Gough Moorhen	œ	Tristan da Cunha
Notornis mantelli	Takahe	ш	New Zealand
astes sylvestr	San Cristobal Mountain Rail		Solomon Is
	Light-footed Clapper Rail	w	Mexico, U.S.A.
Rallus longirostris obsoletus	California Clapper Rail	>	U.S.A.
Rallus owstoni	Guam Rail	>	Guam
Rallus pectoralis muelleri	Auckland Island Rail	-	Auckland Is
Rallus poecilopterus	Barred-wing Rail	ш	
Rallus semiplumbeus	Bogota Rail	>	
Sarothrura ayresi	White-winged Flufftail	-	Ethiopia & Southern Afric
Sarothrura watersi	Slender-billed Flufftail	<b></b>	Madagascar
Tricholimas sylvestris	Lord Howe Wood Rail	w	Lord Howe I.
Family Rhynochetidae			•
Rhynochetos Jubatus	Кавр	ш	New Caledonia

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India	[Canary Is] Chatham Is	Hawaii New Zealand	St Helena Madagascar Chatham Is [Indonesia]	New Zealand Asia Americas Tuamotu South-east Asia	Mediterranean, North Africa Mongolia, U.S.S.R., Vietnam Guatemala, Mexico, U.S.A. Southern Africa China & South-east Asia	Pacific Trust Territory Argentina, Paraguay, Brazil Canary Is Jamaica Puerto Rico Canary Is Somelia
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Great Indian Bustard	Canarian Black Oystercatcher Chatham Island Oystercatcher	Hawaiian Stilt Black Stilt	St Helena Plover Madagascar Plover New Zealand Shore Plover Javanese Wattled Lapwing	New Zealand Snipe Asian Dowitcher Eskimo Curlew Tuamotu Sandpiper Spotted Greenshank	Audouin's Gull Relict Gull California Least Tern Damara Tern Chinese Crested Tern	Palau Nicobar Pigeon Purple-Winged Ground Dove Dark-tailed Laurel Pigeon Jamaican Plain Pigeon Puerto Rican Plain Pigeon White-tailed Laurel Pigeon Somali Pigeon
Family Otididae	Order CHARADRIIFORMES Family Haematopodidae Haematopus meadewaldoi Haematopus unicolor chathamensis	Family Recurvirostridae Himantopus himantopus knudseni Himantopus novaezealandiae	Family Charadriidae Charadrius sanctaehelenae Charadrius thoracicus Thinornis novaeseelandiae Vanellus macropterus	Family Scolopacidae  Coenocorypha aucklandica Limnodromus semipalmatus Numenius borealis Prosobonia cancellatus Tringa guttifer	Family Laridae Larus audouinii Larus relictus Sterna albifrons browni Sterna balaenarum Sterna zimmermanni	Order COLUMBIFORMES  Family Columbidae  Caloenas nicobarica pelewensis  Claravis godefrida  Columba bollii  Columba inornata exigua  Columba inornata wetmorei  Columba inornata wetmorei  Columba oliviae

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R Azores V Sao Tome V Canary Is, Madeira V West Samoa V New Caledonia V Society Is, Tuamotu E Marquesas Is V New Caledonia I Marshall Is E Caroline Is	×	R Cook I., Society Is, Tuamotu R Marquesas Is	R Zambia, Zimbabwe E Dominica E St Vincent E Dominica R Bahamas R Cayman Is V Argentina, Brazil, Uruguay E St Lucia	E South America E Brazil I Ecuador I Bolivia
Azores Wood Pigeon Maroon Pigeon Long-toed Pigeon Tooth-billed Pigeon Cloven-feathered Dove Society Islands Pigeon Marquesas Pigeon Giant Imperial Pigeon Truk Micronesian Pigeon		Tahiti Lorikeet Ultramarine Lorikeet	Black-cheeked Lovebird Red-necked Parrot Red-tailed Parrot St Vincent Parrot Imperial Parrot Bahamas' Parrot Cayman Brac Parrot Red-spectacled Parrot St Lucia Parrot	Glaucous Macaw Lear's Macaw Guayaquil Great Green Macaw Blue-throated Macaw Golden Parakeet
Columba thomensis Columba thomensis Columba trocaz Didunculus strigirostris Drepanoptila holosericea Ducula aurorae Ducula galeata Ducula goliath Ducula oceania ratakensis Ducula oceania teraokai	whartoni lumba ru ilumba ru iga novae la conov la mayeri is mayeri ppus hutt ppus rose	Order PSITTACIFORMES Family Loriidae Vini peruviana Vini ultramarina	Family Psittacidae  Agapornis nigrigenis Amazona arausiaca Amazona dildingii Amazona imperialis Amazona leucocephala bahamensis Amazona leucocephala hesterna Amazona versicolor	Anodorhynchus glaucus Anodorhynchus leari Ara ambigua guayaquilensis Ara glaucogularis Aratinga guarouba

I Colombia Seychelles V Brazil Chatham Is Chatham Is Norfolk I. New Caledonia I New Caledonia I Colombia I Australia R Australia I Brazil I Brazil	E Cameroon R Zanzibar R Ethiopia Ex [Madagascar] E Brazil I Brazil I Madagascar	I Zaire I Madagascar
Rufous-fronted Parakeet Seychelles Black Parrot Spix's Macaw Forbes's Parakeet Orange-fronted Parakeet Norfolk Island Parakeet Night Parrot Indigo-winged Parrot Orange-bellied Parakeet Turquoise Parakeet Splendid Parakeet Follow-eared Conure Ground Parrot Golden-shouldered Parakeet Hooded Parakeet Paradise Parakeet Amuritius Parakeet Mauritius Parakeet Mauritius Parakeet Kakapo Black-eared Parrotlet Golden-tailed Parrotlet	Bannerman's Turaco Zanzibar Red-crested Lourie Prince Ruspoli's Turaco Snail-eating Coua South-eastern Rufous-vented Ground Cuckoo Bahia Rufous-vented Ground Cuckoo	Itombwe Owl Madagascar Red Owl
Coracopsis nigra barklyi Cyanopsitta spixii Cyanoramphus auriceps forbesi Cyanoramphus malherbi Cyanoramphus malherbi Cyanoramphus malherbi Cyanoramphus malherbi Cyanoramphus novaezelandiae cookii Eunymphicus cornutus uvaeensis Geopsittacus occidentalis Hapalopsittaca amazonina fuertisi Neophema chrysogaster Neophema chrysogaster Neophema splendida Ognorhynchus icterotis Pezoparus Wallicus Pesephotus c. crysopterygius Psephotus chrysopterygius Psephotus pulcherrimus Psittacula eques Psittacula eques Pyrrhura cruentata Rhynchopsitta pachyrhyncha Strigops habroptilus Touit melanonta	Order CUCULIFORMES Family Musophagidae Tauraco bannermani Tauraco fischeri zanzibaricus Tauraco ruspolii Family Cuculidae Coua delalandei Neomorphus geoffroyi dulcis Neomorphus geoffroyi maximiliani Pachycoccyx audeberti audeberti	Order STRIGIFORMES Family Tytonidae Phodilus prigoginei

	R Trinidad & Tobago	R Caroline 1s	I India	.R Tanzania	R Rwanda, Zaire	I Norfolk I.		E Taiwan		R Seychelles	E Kenya	I Irian Jaya			E Comoro Is	R West Africa		R Puerto Rico	K West Africa, Angola R Seychelles I Zaire			E Chile Brazil			E Brazil		V Central America	EGuam
	Tobago Striped Owl	Ponape Short-eared Owl	Forest Little Owl	Nduk Eagle Owl	Albertine Owlet	Norfolk Boobook Owl	Christmas Island Owl	Lanyu Scops Owl	Sao Tome Scops Owl	Seychelles Scops Owl	Sokoke Scops Owl	Papuan Scops Owl	Virgin Islands Screech Owl	Grand Comoro Scops Owl	Anjouan Scops Owl	Rutous Fishing Owl		Puerto Rican Whippoorwill	Fernando Po Swift Seychelles Swiftlet Schouteden's Swift		Black Inca	Unlean Woodstar Hook-billed Hermit	Klabin Farm Long-tailed Hermit	Black-billed Hermit	Black Barbthroat		Resplendent Quetzal	Giant Micronesian Kingfisher
Family Strigidae	Asio clamator oberi	Asio flammeus ponapensis	Athene blewitti	Bubo vosseleri	Glaucidium albertinum	Ninox novaeseelandia undulata	Ninox squamipila natalis			Otus insularis		Otus magicus beccarii	Otus nudipes newtoni	Otus pauliani	Otus rutilus capnodes	Scotopella ussheri	Order CAPRIMULGIFORMES Family Caprimulgidae	Caprimulgus noctitherus	Order APODIFORMES Family Apodidae Apus stadeniae Collocatia elaphra Schoutedenapus schoutedeni	Town T.	Coeligena prunellei	Glaucis dohrnii	Phaethornis margarettae	Phaethornis nigirostris	Threnetes grzimeki	Order TROGONIFORMES Family Trogonidae	Pharomacrus mocinno	Order CORACIIFORMES Family Alcedinidae Halcyon cinnamomina cinnamomina

I India, Sri Lanka	R Madagascar R Madagascar R Madagascar R Madagascar	I South-east Asia	I Zambia V Colombia, Ecuador R South Africa	K Cameroon, Ghana, Liberia		R Trinidad & Tobago
Ceylon Broad-billed Roller	Rufous-headed Ground Roller Short-legged Ground Roller Scaly Ground Roller Long-tailed Ground Roller	Helmeted Hornbill	White-chested Tinkerbird Toucan Barbet Ngoye Green Barbet	Yellow-footed Honeyguide	Imperial Woodpecker Ivory-billed Woodpecker Owston's White-backed Woodpecker Helmeted Woodpecker Tristram's Woodpecker Grand Bahama Red-bellied Woodpecker San Salvador Red-bellied Woodpecker Inouye's Three-toed Woodpecker Takatsukasa's Green Woodpecker Okinawa Woodpecker	Trinidad Straight-billed Woodcreeper
Family Coraciidae  Eurystomus orientalis irisi	Family Brachypteraciidae  Atelornis crossleyi Brachypteracias leptosomus Brachypteracias squamiger Uratelornis chimaera	Family Bucerotidae Rhinoplax vigil	Order PICIFORMES Family Capitonidae Pogoniulus makawai Semnornis ramphastinus Stactolaema olivacea woodwardi	Family Indicatoridae	Family Picidae Campephilus imperialis Campephilus principalis Dendrocopos leucotos owstoni Dryocopus galeatus Dryocopus javensis richardsi Melanerpes superciliaris bahamensis Melanerpes superciliaris bahamensis Melanerpes superciliaris pahamensis Picoides borealis Picoides borealis Picoides tridactylus inouyei Picus awokera takatsukasae Sapheopipo noguchiii Order PASSERIFORMES Family Eurylaimidae Pseudocalyptomena grauerii Family Dendrocolaptidae	Xiphorhynchus picus altirostris

V Brazil I Colombia R Trindad/Tobago I Colombia E Brazil V Brazil	I Brazil I Brazil	I Brazil V Colombia, Ecuador V Brazil V Brazil	I Colombia	I Burma, Thailand	Ex [New Zealand]	I Madagascar	E Australia R Australia
Narrow-billed Antwren Moustached Antpitta Trinidad Scaled Antpitta Brown-banded Antpitta Black-hooded Antwren Fringe-backed Fire-eye Slender Antbird	Stresemann's Bristlefront Brasilia Tapaculo	Kinglet Calyptura Long-wattled Umbrellabird Banded Cotinga Marcgrave's Bearded Bellbird White-winged Cotinga	Bogota Bearded Tachuri	Gurney's Pitta	New Zealand Bush Wren	Yellow-bellied Sunbird-asity	Noisy Scrub Bird Rufous Scrub Bird
Family Formicaridae Formicivora iheringi Grallaria alleni Grallaria guatimalensis aripoensis Grallaria milleri Myrmotherula erythronotos Pyriglena atra Rhopornis ardesiaca	Family Rhinocryptidae Merulaxis stresemanni Scytalopus novacapitalis	Family Cotingidae Calyptura cristata Cephalopterus penduliger Cotinga maculata Procnias averano averano Xipholena atropurpurea	Family Tyrannidae Polystictus pectoralis bogotensis	Family Pittidae	Family Xenicidae	Family Philepittidae	Family Atrichornithidae Atrichornis clamosus Atrichornis rufescens

E Raso (Cape Verde Is) I Somalia I South Africa I Ethiopia K Somalia K Ethiopia	R Ethiopia I Jamaica I Thailand	V Kenya, Tanzania	V West Africa V Reunion V Mauritius	V Zaire V West Africa V Mauritius R Madagascar R Madagascar R Madagascar	E U.S.A. I Sao Tome R Tanzania R Cameroon, Nigeria I Angola, Cameroon I Angola	R Madagascar R Madagascar
а <del>,</del> ж	E					
Raso Lark Somali Long-clawed Lark South African Long-clawed La Sidamo Long-clawed Lark Ash's Lark Degodi Lark Botha's Lark	White-tailed Swallow Jamaica Golden Swallow White-eyed River Martin	Sokoke Pipit	Western Wattled Cuckoo-shrike Reunion Cuckoo-shrike Mauritius Cuckoo-shrike	Prigogine's Greenbul Yellow-throated Olive Greenbul Mauritius Black Bulbul Appert's Greenbul Grey-crowned Greenbul Dusky Greenbul	San Clemente Loggerhead Shrike Sao Tome Fiscal Shrike Uluguru Bush-shrike Green-breasted Bush-shrike Mount Kupe Bush-shrike Monteiro's Bush-shrike	Van Dam's Vanga Pollen's Vanga
Family Alaudidae  Alauda razae Heteromirafra archeri Heteromirafra ruddi Heteromirafra sidamoensis Mirafra ashi Mirafra degodiensis Spizocorys fringillaris	Family Hirundinidae Hirundo megaensis Kalochelidon euchrysea Pseudochelidon sirintarae	Family Motacillidae  Anthus sokokensis	Family Campephagidae  Campephaga lobata  Coracina newtoni  Coracina typica	Family Pycnonotidae Chlorocichla prigoginei Criniger olivaceus Hypsipetes olivaceus Phyllastrephus apperti Phyllastrephus cinereiceps Phyllastrephus cinereiceps	Family Lanidae Lanius Ludovicianus mearnsi Lanius newtoni Malaconotus alius Malaconotus gladiator Malaconotus kupeensis Malaconotus monteiri Prionops gabela	Family Vangidae  Xenopirostris damii Xenopirostris polleni

I Argentina	V Colombia R Cuba E Guadeloupe E St Lucia R U.K.	E Martinique R Galapagos Is E Martinique, St Lucia	Marduesas Is			F Dodrigges		E Malawi, Mozambique	I Sao Tome	I Australia			Tanzania, Ug	R Mozambique, Tanzania	R Tanzania	E New Zealand	Cameroon,	V Central & East Africa	R Central & East Africa	E St Lucia			Seychel	I Angola, Zaire	Ī	R Australia	E Australia
Rufous-throated Dipper	Apolinar's Marsh Wren Zapata Wren Guadeloupe Wren St Lucia Wren Fair Isle Wren	Martinique Trembler Charles Mockingbird White-breasted Trembler	Eiao Polynesian Warbler	Moorea Polynesian Warbler	Hatutu Polynesian Warbler	Rodrigues Brush Warbler	Seychelles Brush Warbler	Thyolo Alethe	Sao Tome Short-tail	Eyrean Grass Wren	Kungwe Apalis	Kabobo Apalis	Karamoja Apalis	Long-billed Apalis	Mrs Moreau's Warbler	Codfish Island Fernbird	Dja River Warbler	Grauer's Swamp Warbler	Papyrus Yellow Warbler	St Lucia Forest Thrush		Jana River Cisticola	Seychelles Magpie Robin	White-headed Robin-chat	Madagascar Yellowbrow	Western Bristlebird	Western Rufous Bristlebird
Family Cinclidae	Family Troglodytidae  Cistothorus apolinari Ferminia cerverai Troglodytes aedon guadeloupensis Troglodytes troglodytes troglodytes troglodytes troglodytes fridariensis	Family Mimidae Cinclocerthia ruficauda gutturalis Nesomimus trifasciatus Ramphocinclus brachyurus	Family Muscicapidae Acrocephalus caffer aquilonis	caffer	Acrocephalus catter postremus			Alethe choloensis	Amaurocichla bocagii	Amytornis goyderi	argentea		Apalis karamojae	Apal 1s moreau	Bathmocercus Winitredae	Bowdleria punctata wilsoni	Bradypterus grandis	Bradypterus graueri	Chloropeta gracilirostris	Cichlherminia therminieri	sanctaeluciae	Listicola restricta	Copsychus sechellarum	Cossypha heinrichi	Crossleyia xanthophrys	Dasyornis brachypterus longirostris	Dasyornis broadbenti littoralis

R Tanzania		E Ryukyu Is	Comoro Is				I Ivory Coast, Liberia	Caroline Is	R Mozambique, Tanzania				E Seychelles	R Tristan da Cunha	I Madagascar	I China					V West Africa	V West Africa		V Cook I.	Marquesas	Marquesas			۲۸.				East Africa	R Mozambique, Tanzania, Zimba			TI LI	Kenya	R East & South Africa	E Kenya
Iringa Ground Robin	Turner's Eremomela	Southern Ryukyu Robin	Grand Comoro Flycatcher	White-throated Mountain Babbler	Pulitzer's Longbill	Japanese Marsh Warbler	Nimba Flycatcher	Truk Monarch	Dappled Mountain Robin	Benson's Rockthrush	Chapin's Flycatcher	St Vincent Solitaire	Aldabra Brush Warbler	Tristan Starchy	Fanovana Newtonia	Lower Yangtze Xiang Crow-tit	Chatham Island Black Robin	Kauai Thrush	Molokai Thrush	Small Kauai Thrush	White-necked Picathartes	Grey-necked Picathartes	Banded Wattle-eye	Rarotonga Flycatcher	Eiao Flycatcher	Hivaoa Flycatcher	Uapou Flycatcher	Nukuhiva Flycatcher	Tahiti Flycatcher	River Prinia	Guadeloupe Kinglet	Fuerteventura Stonechat	East Coast Akalat	Swynnerton's Forest Robin	Mauritius Paradise Flycatcher	Seychelles Black Paradise Flycatcher	Long-legged Warbler	Hinde's Pied Babbler	Spotted Ground-thrush	Taita Thrush
Dryocichloides lowei	Fremomela turneri	Erithacus komadori subrufa		Lioptilus gilberti	Macrosphenus pulitzeri	Megalurus pryeri pryeri	Melaenornis annamarulae	Metabolus rugensis	Modulatrix orostruthus	Monticola bensoni	Muscicapa Lendu		Idabranus		Newtonia fanovanae	Paradoxornis heudei heudei	Petroica traversi	Phaeornis obscurus myadestina	Phaeornis obscurus rutha	palmeri	Picathartes gymnocephalus	Picathartes oreas	Platysteira laticincta	Pomarea dimidiata	Pomarea iphis fluxa	Pomarea mendozae mendozae	Pomarea mendozae mira	Pomarea mendozae nukuhivae		Prinia "fluviatilis"	Regulus calendula obscura	Saxicola dacotiae	Sheppardia gunningi	Swynnertonia swynnertoni	Terpsiphone bourbonnensis desolata	Terpsiphone corvina	Trichocichta rufa	Turdoides hindei	Turdus fischeri	Turdus helleri

I Uganda Zaire R Uganda, Zaire E Norfolk I. I Ryukyu Is	R Algeria	R Kenya, Tanzania R Tanzania E Zaire R Zaire R Tanzania	R Caroline Is E Caroline Is R Eq. Guinea E Norfolk I. V Mauritius I Marianas I Sao Tome E Solomon Is R Seychelles R Comoro Is	E Japan E Australia E Hawaii V New Zealand	R U.S.A. E U.S.A. I Colombia R Galapagos Is I Galapagos Is Ex [U.S.A.] E Brazil R Tristan da Cunha
Kibale Ground-thrush Forest Ground-thrush Grey-headed Blackbird Amami Ground-thrush	Algerian Nuthatch	Amani Sunbird Banded Green Sunbird Marunga Sunbird Rockefeller's Sunbird Rufous-winged Sunbird	Ponape Greater White-eye Truk Greater White-eye Fernando Po Speirops White-breasted Silver-eye Mauritius Olive White-eye Rota Bridled White-eye Sao Tome White-eye Gizo White-eye Seychelles White-eye	Mukojima Bonin Honeyeater Helmeted Honeyeater Kauai 'O'o Stitchbird	Cape Sable Seaside Sparrow Dusky Seaside Sparrow San Clemente Sage Sparrow Olive-headed Brush Finch Mangrove Finch Floreana Large Ground Finch Amak Song Sparrow Cherry-throated Tanager Tristan Bunting
Turdus kibalensis Turdus oberlaenderi Turdus poliocephalus Zoothera dauma major	Family Sittidae	Family Nectariniidae Anthreptes pallidigaster Anthreptes rubritorques Nectarinia prigoginei Nectarinia rockefelleri Nectarinia rufipennis	Family Zosteropidae  Rukia longirostris Rukia ruki Speirops brunneus Zosterops albogularis Zosterops conspicillata Zosterops ficedulinus Zosterops ficedulinus Zosterops modestus Zosterops modestus Zosterops modestus	Family Meliphagidae  Apalopteron familiare familiare Meliphaga cassidix Moho braccatus Notiomystis cincta	Family Emberizidae  Ammodramus maritimus mirabilis  Ammodramus maritimus mirabilis  Ammodramus maritimus nigrescens  Amphispiza belli clementeae  Atlapetes flaviceps  Camarhynchus heliobates  Geospiza magnirostris magnirostris  Melospiza melodia amaka  Nemosia rourei  Neospiza acunhae

Sao Tome Tristan da Cunha Tristan da Cunha Colombia Guatemala Brazil	Bahamas, North America Barbados Bahamas St Lucia Bahamas, Cuba, U.S.A.	Hawaii Hawaii Hawaii Hawaii Hawaii Hawaii Hawaii	Puerto Rico Somalia Canary Is Azores Ethiopia Ethiopia Colombia, Venezuela,
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Sao Tome Grosbeak Grosbeak Bunting Gough Bunting Tumaco Seedeater Azure-rumped Tanager Seven-colored Tanager Zapata Sparrow	Kirtland's Warbler Barbados Yellow Warbler New Providence Bahama Yellowthroat Semper's Warbler Bachman's Warbler	Nukupu'u Kauai 'Alialoa 'Akiapola'au Palila Hawaii 'Akepa Maui 'Akepa Po'o Uli Crested Honeycreeper Kauai Creeper Molokai Creeper Oahu Creeper Maui Parrotbill	Yellow-shouldered Blackbird Warsangli Linnet Blue Chaffinch Sao Miguel Bullfinch Ankober Serin Yellow-throated Serin Red Siskin
Neospiza concolor Neospiza wilkinsi Rowettia goughensis Sporophila insulata Tangara cabanisi Tangara fastuosa Torreornis inexpecta	Family Paruilidae  Dendroica kirtlandii  Dendroica petechia petechia  Geothlypis rostrata rostrata  Leucopeza semperi  Vermivora bachmanii	Family Drepanididae Hemignathus lucidus Hemignathus procerus Hemignathus procerus Hemignathus wilsoni Loxioides bailleui Loxops coccinea coccinea Loxops coccinea coccinea Loxops coccinea ochracea Melamprosops phaeosoma Melamprosops phaeosoma Palmeria dolei Paroreomyza maculata bairdi Paroreomyza maculata flammea Paroreomyza maculata maculata Paroreomyza parorea	Family Icteridae  Agelaius xanthomus  Family Fringillidae  Acanthis johannis Fringilla teydea Pyrrhula pyrrhula murina Serinus ankoberensis Serinus flavigula Spinus cucullatus

Fiji Pacific Trust Territory Zaire Nigeria	Rodrigues Mauritius Seychelles Ivory Coast, Liberia, Sierra Leone Nigeria Zaire Cameroon Zaire Kenya Ianzania Angola, Congo Zaire Angola, Congo, Gabon, Zaire	Caroline Is Fiji Indonesia Comoro Is	New Zealand New Zealand	Pacific Trust Territory	Lord Howe 1.
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Pink-billed Parrotfinch Palau Blue-faced Parrotfinch Black-lored Waxbill Anambra Waxbill	Rodrigues Fody Mauritius Fody Seychelles Fody Gola Malimbe Ibadan Malimbe Golden-naped Weaver Bannerman's Weaver Bates's Weaver Yellow-legged Weaver Clarke's Weaver Tanzanian Mountain Weaver Black-chinned Weaver Lake Lufira Weaver Lake Lufira Weaver	Ponape Mountain Starling Santo Mountain Starling Rothschild's Starling Grand Comoro Drongo	Kokako Saddl eback	Palau White-breasted Wood Swallow	Lord Howe Currawong
Family Estrildidae Erythrura kleinschmiditi Erythrura trichroa pelewensis Estrilda nigriloris Estrilda poliopareia	Foudia flavicans Foudia rubra Foudia sechellarum Malimbus ballmanni Malimbus ibadanensis Ploceus aureonucha Ploceus batesi Ploceus flavipes Ploceus golandi Ploceus nigrimentum Ploceus ruweti Ploceus ruweti	Family Sturnidae  Aplonis pelzelni Aplonis santovestris Leucopsar rothschildi  Family Dicruridae Dicrurus fuscipennis Dicrurus waldeni	Family Callacidae Callaeas cinerea Creadion carunculatus	Family Artamidae Artamus Leucorhynchus pelewensis	Family Cracticidae Strepera graculina crissalis

Guam Hawaii Ethiopia		Costa Rica, Nicaragua, Panama Mexico Colombia U.S.A.	Central America	South-east Asia South-east Asia U.S.A. U.S.A.	U.S.A. Colombia, Venezuela Central America Mexico Mexico Argentina, Bolivia, Paraguay Galapagos Is South-east Asia Sulawesi	South-east Asia Burma
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Marianas Crow Hawaiian Crow Ethiopian Bush-crow		Narrow-bridged Mud Turtle Creaser's Mud Turtle Dunn's Mud Turtle Illinois Mud Turtle Flattened Musk Turtle	Central American River Turtle	River Terrapin Painted Terrapin Bog Turtle Cane Turtle Alabama Red-bellied Turtle	Plymouth Red-bellied Turtle South American Red-lined Turtle Furrowed Wood Turtle Mexican Spotted Wood Turtle Aquatic Box Turtle Red-foot Tortoise Galapagos Giant Tortoise Burmese Brown Tortoise Sulawesi Tortoise	Impressed Tortoise Burmese Starred Tortoise
Family Corvidae  Corvus kubaryi Corvus tropicus Zavattariornis stresemanni	CLASS REPTILIA	Crder TESTUDINES Family Kinosternon angustipons Kinosternon creaseri Kinosternon dunni Kinosternon dunni Kinosternon flavescens spooneri Sternotherus minor depressus	Family Dermatemydidae	Batagur baska Callagur borneoensis Clemmys muhlenbergii Heosemys silvatica Pseudemys alabamensis	Pseudemys rubriventris bangsi Pseudemys scripta callirostris Rhinoclemmys areolata Rhinoclemmys rubida Terrapene coahuila Geochelone carbonaria Geochelone chilensis Geochelone elephantopus Geochelone elephantopus Geochelone forstenii	

Wadagascar K India E Madagascar V Mexico, U.S.A. I Mexico, U.S.A. E Mexico V U.S.A. K Kenya, Tanzania V South Africa I Madagascar I Madagascar I Wadagascar I Europe, North Africa V Europe I Egypt, Israel, Libya	V Subtropical & Temperate Seas E Tropical Seas E Tropical Seas E Gulf of Mexico E Tropical Seas	E Tropical & Temperate Seas K Australia, New Guinea		I Madagascar K Brazil, Venezuela E Amazon Basin I Colombia K Brazil, Colombia, Peru V Amazon Basin	I Colombia I Brazil K Brazil, Colombia
Radiated Tortoise Travancore Tortoise Angonoka Desert Tortoise Texas Gopher Tortoise Bolson Tortoise Florida Gopher Tortoise Pancake Tortoise Geometric Tortoise Spider Tortoise Madagascar Flat-shelled Tortoise Spur-thighed Tortoise Hermann's Tortoise Egyptian Tortoise	Loggerhead Turtle Green Turtle Hawksbill Turtle Kemp's Ridley Olive Ridley	Leatherback New Guinea Plateless Turtle	Dark Soft-shell Turtle	Madagascar Sideneck Turtle Red-headed Amazon Turtle South American River Turtle Magdalena River Turtle Yellow-spotted Sideneck Turtle	Dahl's Toad-headed Turtle Koge's Sideneck Turtle Red-headed Sideneck Turtle
Geochelone travancorica Geochelone travancorica Geochelone yniphora Gopherus agassizii Gopherus berlandieri Gopherus polyphemus Malacchersus tornieri Psammobates geometricus Pyxis arachnoides Pyxis planicauda Iestudo graeca graeca Iestudo hermanni Testudo kleinmanni	Family Cheloniidae  Caretta caretta Chelonia mydas Eretmochelys imbricata Lepidochelys kempii Lepidochelys olivacea	Family Dermochelyidae  Dermochelys coriacea  Family Carettochelyidae  Carettochelys insculpta	Family Trionychidae	Family Pelomedusidae  Erymnochelys madagascariensis Podocnemis erythrocephala Podocnemis lewyana Podocnemis sextuberculata Podocnemis unifilis	Family Chelidae  Phrynops dahli Phrynops hogei Phrynops rufipes

Argentina, Paraguay Argentina, Brazil, Uruguay Western Australia	China Central & South America Southern South America South America	Caribbean, Central America, U.S.A. Africa Colombia, Venezuela Australia Philippines Central America Africa, Madagascar	South Asia Asia, Australia, West Pacific Cuba South-east Asia South-east Asia	South Asia	New Zealand	Round I., Serpent I. Australia Rodrigues Round I.	U.S.A.
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Chaco Sideneck Turtle Spix's Sideneck Turtle Western Swamp Turtle	Chinese Alligator Spectacled Caiman Broad-nosed Caiman Black Caiman	American Crocodile African Slender-snouted Crocodile Orinoco Crocodile Australian Fresh-water Crocodile Philippines Crocodile Morelet's Crocodile Nile Crocodile	Mugger Estuarine Crocodile Cuban Crocodile Siamese Crocodile West African Dwarf Crocodile False Gharial	Gharial	Tuatara	Serpent Island Gecko Reticulated Velvet Gecko Rodrigues Day Gecko Round Island Day Gecko	Island Night Lizard
Platemys pallidipectoris Platemys spixii Pseudemydura umbrina	Order CROCODYLIA Family Alligatoridae Alligator sinensis Caiman crocodilus Caiman latirostris Melanosuchus niger	Family Crocodylidae Crocodylus acutus Crocodylus intermedius Crocodylus intermedius Crocodylus mindorensis Crocodylus mindorensis Crocodylus mindorensis Crocodylus niloticus Crocodylus novaequineae	S S S S S S S S S S S S S S S S S S S	Family Gavialidae	Order RHYNCHOCEPHALIA Family Spherodontidae	Order SAURIA Family Gekkonidae Cyrtodaetylus serpensinsula Oedura reticulata Phelsuma edwardnewtonii Phelsuma guentheri	Family Xantusiidae

V Philippines	R Galapagos Is E Culebra I. (Puerto Rico) E Fiji, Tonga				E U.S.A. K Mexico, U.S.A.	E Hierro (Canary Is) R Filfola I. (Malta)	E U.S. Virgin Is V Mexico, U.S.A.	R Mauritius R Round I. I Cape Verde Is	K U.S.A.	E U.S.A.	I Guatemala, Mexico V Mexico, U.S.A.
Sail-fin Lizard	Galapagos Marine Iguana Culebra Island Giant Anole Fiji Banded Iguana	Galapagos Land Iguana Turks & Caicos Rock Iguana	Rhinoceros Rock Iguana Andros Ground Iguana Cuban Ground Iguana	Anegada Ground Iguana Hispaniolan Ground Iguana	San Joaquin Leopard Lizard San Diego Horned Lizard	Hierro Giant Lizard Filfola Lizard	St Croix Ground Lizard Orange-throated Whiptail	Macab Forest Skink Round Island Skink Cape Verde Giant Skink	Panamint Alligator Lizard	Black Legless Lizard	Beaded Lizard Gila Monster
Family Agamidae	Family Iguanidae  Amblyrhynchus cristatus  Anolis roosevelti Brachylophus fasciatus Conolophus ballidus	Conclopius subcristatus Cyclura carinata		Cyclura pinguis Cyclura ricordii Cyclura rileyi	Gambella silus Phrynosoma cornatum blainvillei	Family Lacertidae  Gallotia simonyi  Podarcis filfolensis filfolensis	Family Teiidae Ameiva polops Cnemidophorus hyperythrus	Family Scincidae  Gongylomorphus bojerii Leiolopisma telfairii Macroscincus coctaei	Family Anguidae Gerrhonotus panamintus	Family Anniellidae Anniella pulchra nigra	Family Helodermatidae

West Asia Indonesia	Mona I.	Madagascar Madagascar Round I. N.S.A. Cuba Puerto Rico Mona I. Bahamas Jamaica South & South-east Asia	U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. Mexico, U.S.A. U.S.A.	Central Asia Fiji	Queimada I. (Brazil) Aruba I. (Netherlands Antilles) Mexico, U.S.A. Turkey, U.S.S.R. Iran Cyclades Is Turkey, U.S.S.R.	Do=4:10.
> ~	œ	$\times$ $\times$ $m$ $m$ $\alpha$ $\mapsto$ $m$ $\alpha$ $\alpha$ $>>$ $\times$	> <b>~ ~ ~ ~ ~ ~ ~ w</b>	w >	$x \propto \vdash \propto m > \propto$	
Central Asian Monitor Komodo Dragon	Mona Blind Snake	Madagascar Boa Round Island Boa Round Island Keel·scaled Boa Southern Rubber Boa Cuban Tree Boa Puerto Rican Boa Mona Boa Bimini Boa Jamaican Boa Indian Python	Eastern Indigo Snake San Joaquin Coachwhip Almeda Striped Racer Atlantic Saltmarsh Snake Lake Erie Water Snake Giant Garter Snake Two-striped Garter Snake San Francisco Garter Snake	Central Asian Cobra Fiji Snake	Queimada Island Bothrops Aruba Island Rattlesnake Arizona Ridge-nosed Rattlesnake Transcaucasian Long-nosed Viper Latifi's Viper Lebetine Viper Armenian Viper	
Varanus griseus caspius Varanus komodoensis	Order SERPENTES Family Typhlopidae Typhlops monensis	Family Boidae  Acrantophis dumerili  Acrantophis madagascariensis  Bolyeria multocarinata Casarea dussumieri Charina bottae umbratica Epicrates angulifer Epicrates inornatus Epicrates inornatus Epicrates striatus fosteri Epicrates subflavus Python molurus Sanzinia madagascariensis	Family Colubridae  Drymarchon corais couperi Masticophis flagellum ruddocki Masticophis lateralis euryxanthus Nerodia fasciata taeniata Nerodia sipedon insularum Thamnophis couchi gigas Thamnophis sirtalis tetrataenia	Family Elapidae Naja oxiana Ogmodon vitianus	Family Viperidae Bothrops insularis Crotalus unicolor Crotalus willardi Vipera ammodytes transcaucasiana Vipera latifii Vipera lebetina schweizeri Vipera raddei	

### CLASS AMPHIBIA

I China R Japan	V U.S.A. REXICO R MEXICO R MEXICO R MEXICO	V Portugal, Spain		V South Africa
Chinese Giant Salamander Japanese Giant Salamander	California Tiger Salamander Lake Patzcuaro Salamander Lake Lerma Salamander Santa Cruz Long-toed Salamander Axolotl	Gold-striped Salamander	Desert Slender Salamander Kern Canyon Slender Salamander Tehachapi Slender Salamander San Marcos Salamander Limestone Salamander Shasta Salamander Red Hills Salamander Larch Mountain Salamander Cheat Mountain Salamander Texas Blind Salamander Grotto Salamander Grotto Salamander Grotto Salamander Hamilton's Frog Hamilton's Frog	Cape Platanna
Order CAUDATA Family Cryptobranchidae Andrias davidianus Andrias japonicus	Family Ambystomatidae  Ambystoma dumerilii dumerilii Ambystoma lermaensis Ambystoma macrodactylum croceum Ambystoma macrodactylum croceum	Family Salamandridae	Family Plethondontidae  Batrachoseps aridus Batrachoseps simatus Batrachoseps simatus Batrachoseps stebbinsi Eurycea nana Hydromantes brunus Hydromantes brunus Hydromantes shastae Phaeognathus hubrichti Plethodon larselli Plethodon richmondi nettingi Iyphlomolge rathbuni Iyphlotriton spelaeus Family Proteidae Proteus anguinus Order ANURA Family Leiopelmatidae Leiopelma archeyi Leiopelma hamiltoni Leiopelma hamiltoni Leiopelma hochstetteri	Xenopus gilli

Israel	Italy	Peru Puerto Rico	Australia Australia	U.S.A. U.S.A. U.S.A. Costa Rica Mexico, U.S.A. Guinea, Ivory Coast	U.S.A.	Cameroon, Eq. Guinea Seychelles Italy, Switzerland, Yugoslavia U.S.A. Seychelles Seychelles	Seychelles	[U.S.A.]
ш	ш	<b>×</b> ∝	∝>	₩ > Ш Ш > >	∝ ⊢	> >	×	Ä
Israel Painted Frog	Italian Spadefoot Toad	Lake Juin Giant Frog Golden Cocqui Frog	Baw-baw Frog Platypus Frog	Amargosa Toad Black Toad Houston Toad Golden Toad Sonoran Green Toad Mount Nimba Viviparous Toad	Pine Barrens Tree Frog Illinois Chorus Frog	Goliath Frog Thomasset's Seychelles Frog Italian Agile Frog Vegas Valley Leopard Frog Gardiner's Seychelles Frog		HI IES Miller Lake Lamprey
Family Discoglossidae Discoglossus nigriventer	Family Pelobatidae Pelobates fuscus insubricus	Family Leptodactylidae Batrachophrynus macrostomus Eleutherodactylus jasperi	Family Myobatrachidae  Philoria frosti Rheobatrachus silus	Family Bufonidae  Bufo boreas nelsoni Bufo exsul Bufo houstonensis Bufo periglenes Bufo retiformis Nectophrynoides occidentalis	Family Hylidae  Hyla andersoni Pseudacris streckeri illinoensis	Family Ranidae  Conraua goliath  Nesomantis thomasseti Rana latastei Rana pipiens fisheri Sooglossus gardineri Sooglossus sechellensis	Family Hyperoliidae Tachycnemis seychellensis	CLASS CEPHALASPIDOMORPHI Order PETROMYZONTIFORMES Family Petromyzontidae

# CLASS OSTEICHTHYES

V Canada, U.S.A. V Canada, U.S.A. V Canada, U.S.A. V U.S.S.R. E U.S.S.R.	I U.S.A.	V Amazon Basin K South-east Asia	R Kampuchea, Thailand	E Turkey R South Africa V South Africa R South Africa R South Africa V South Africa V South Africa V South Africa V Sri Lanka E South Africa V Sri Lanka E South Africa V Sri Lanka R South Africa C South Africa R South Africa R South Africa R Mexico, U.S.A.
Shortnose Sturgeon Lake Sturgeon Atlantic Sturgeon Amur Sturgeon Kaluga Pallid Sturgeon	Paddlefish	Pirarucu Asian Bonytongue	Featherback	Ciek Eastern Cape Redfin Small-scaled Redfin Burchell's Redfin Clanwilliam Redfin Clanwilliam Yellowfish Cuming's Two-banded Barb Twee River Redfin Black Ruby Barb Fiery Redfin Side Striped Barb Fiery Redfin Side Striped Barb Slender Redfin Cherry Barb Border Barb Border Rarb Border Minnow
Order ACIPENSERIFORMES Family Acipenseridae Acipenser brevirostrum Acipenser fulvescens Acipenser oxyrhynchus Acipenser schrencki Huso dauricus Scaphirhynchus albus	Family Polyodontidae	Order OSTEOGLOSSIFORMES Family Osteoglossidae Arapaima gigas Scleropages formosus	Family Notopteridae	Family Cyprinidae Acanthorutilus handlirschi Barbus afer Barbus burchelli Barbus burchelli Barbus capidus Barbus capensis Barbus cumingi Barbus cumingi Barbus cumingi Barbus cumingi Barbus cumingi Barbus phlegethon Barbus phlegethon Barbus phlegethon Barbus phlegethon Barbus titteya Barbus trevelyani Chela caeruleostigmata Dionda diaboli

2.5	Ex [Mexico]		_	×	V Max;02 - 0	U.S.A.	V U.S.A.	_		V Mexica, U.S.A.	V U.S.A.	R U.S.A.	V U.S.A.	R U.S.A.	R U.S.A.	E U.S.A.	V U.S.A.	E Sri Lanka	_	×	V U.S.A.	V U.S.A.	V 0.5.A.	V U.S.A.	V Mexica	V Mexico	V U.S.A.		V Mexico, U.S.A.	R U.S.A.	I U.S.A.	_	_		V U.S.A.	R U.S.A.	E Wexico
Flatjaw Minnow Desert Dace	4.47	Tui Chub	Borax Lake Chub	Thicktail Chub	Humpback Chub	Bonytail	Gila Chub	Saltillo Chub	Chihuahuan Chub	Yadui Chub	Roundtail Chub	Flame Chub	Slender Chub	Oregon Chub	Thicklip Chub	Spotfin Chub	Least Chub	Green Labeo	White River Spinedace	Pahranagat Spinedace	Virgin Spinedace	Little Colorado Spinedace	Spikedace	Moapa Dace	Pilon Shiner	Bigmouth Shiner	Blue Shiner	Bluestripe Shiner	Beautiful Shiner	Bluehead Shiner	Rio Grande Shiner	Cape Fear Shiner	Phantom Shiner	Peppered Shiner	Proserpine Shiner	Roughhead Shiner	Bluntnose Shiner
	Evarra eigenmanni Evarra tlahuacensis	Gila bicolor (subspecies)			Gila ditaonia	Gila elegans					Gila robusta	Hemitremia flammea			Hybopsis labrosa	Hybopsis monacha	Iotichthys phlegethontis	Labeo fisheri	Lepidomeda albivallis	Lepidomeda altivelis		Lepidomeda vittata	Meda tulgida	Moapa coriacea			-	01	٠.	Notropis hubbsi	Notropis jemezanus	Notropis mekistocholas	-	Notropis perpallidus	Notropis proserpinus		Notropis simus

Notropis welaka	Bluenose Shiner	~	U.S.A.
Notropis xanthicara	Cuatro Cienegas Shiner	ш	Mexico
Oreode imon Glath ambae	Drakonshord Minnou	ıu	00000
Olecus IIII de Calli Campac		u >	CESOLIIO
rieliacopius teretutus	Natidwild Milliow	> :	O.5.A.
Phoxinus cumberlandensis	Blackside Dace	>	U.S.A.
Plagopterus argentissimus	Woundfin	ш	U.S.A.
Pogonichthys ciscoides	Clear Lake Splittail	EX	[U.S.A.]
Pogonichthys macrolepidotus	Splittail	œ	U.S.A.
Probarbus jullieni	Ikan Temoleh	-	South-east Asia
Ptychocheilus lucius	Colorado River Squawfish	ш	U.S.A.
Rasbora vaterifloris	Vateria Flower Rasbora	>	Sri Lanka
Relictus solitarius	Relict Dace	>	U.S.A.
Rhinichthys deaconi	Las Vegas Dace	Ë	[U.S.A.]
Rhinichthys osculus (subspecies)	Speckled Dace	*	Canada, U.S.A.
Semotilis lumbee	Sandhills Chub	~	U.S.A.
Stypodon signifer	Stumptooth Minnow	EX	[Mexico]
Tanakia tanago	Tokyo Bitterling	ш	Japan
Tiaroga cobitus	Loach Minnow	>	U.S.A.
Tylognathus klatti		ш	Turkey
Family Cobitidae			
Lepidocephalus jonklassi	Spotted Loach	ш	Sri Lanka
Leptobotia curta	Ayumodoki	ш	Japan
Family Catostomidae			
Catalogue homendini		>	Maria II CA
	Tadul Sucker	> 0	Mexico, U.S.A.
نلي	Uwens sucker	¥ :	U.S.A.
	Lost River Sucker	> 1	U.S.A.
	Modoc Sucker	ш	U.S.A.
	Warner Sucker	ш	U.S.A.
-	Opata Sucker	~	Mexico
Chasmistes brevirostris	Shortnose Sucker	ш	U.S.A.
Chasmistes cujus	Cui-ui	ш	U.S.A.
Chasmistes liorus	June Sucker	ш	U.S.A.
Chasmistes muriei	Snake River Sucker	E	[U.S.A.]
Lagochila lacera	Harelip Sucker	Ë	[U.S.A.]
Moxostoma hamiltoni	Rustyside Sucker	œ	U.S.A.
Moxostoma hubbsi	Copper Redhorse	>	Canada
Xyrauchen texanus	Razorback Sucker	ш	U.S.A.

E Brazil V Argentina	E Chile	R Mexico E U.S.A. V U.S.A.	R R R R R C C C C C C C C C C C C C C C	E Japan R South Africa		R U.S.A.
Naked Characin	Tollo de Agua Dulce	Rio Verde Catfish Yaqui Catfish Smoky Madtom Yellowfin Madtom Carolina Madtom Orangefin Madtom	Frecklebelly Madtom Neosho Madtom Neosho Madtom Caddo Madtom Scioto Madtom Muzquiz Blindcat Widemouth Blindcat	Nekogigi Clanwilliam Rock-catfish	Catfish Cave Catfish	Olympic Mudminnow
Family Characidae Catabasis acuminatus Gymnocharacinus bergi	Order SILURIFORMES Family Diplomystidae Diplomystes chilensis	그 에 에 지 그 그 어-	Noturus tachneri Noturus placidus Noturus stanauli Noturus taylori Noturus trautmani Prietella phreatophila Satan eurystomus Trogloglanis pattersoni	Family Bagridae  Coreobagrus ichikawai  Gephryoglanis gilli  Family Pangasiidae	Pangasius sanitwongsei  Family Clariidae  Clarias cavernicola	Order SALMONIFORMES Family Umbridae

Order CHARACIFORMES

R Canada, U.S.A.	Ex [New Zealand]	I New Zealand R New Zealand I New Zealand	Ex [Great Lakes (North America)] E Great Lakes (North America) I Great Lakes (North America) Ex Great Lakes (North America) V Great Lakes (North America)	Great Lakes (North Great Lakes (North Great Lakes (North	* ×	V U.S.A. V U.S.A.	R Mexico	E Brazil V U.S.A. V U.S.A. V Mexico
Pygmy Smelt	New Zealand Greyling	Shortjawed Kokopu Canterbury Mudfish Black Mudfish	Longjaw Cisco Atlantic Whitefish Bloater Deepwater Cisco	Blackfin Cisco Shortnose Cisco Shortjaw Cisco	Mexican Golden Trout Cutthroat Trout Gila Trout Ala Balik Silver Trout	Ozark Cavefish Northern Cavefish Alabama Cavefish	ES Mexican Rivulus	Santa Catarina Sabrefin White River Springfish Railroad Valley Springfish Media Luna Killie
Family Osmeridae	Family Retropinnidae	Family Galaxiidae  Galaxias postvectis Neochanna burrowsius Neochanna diversus	Family Salmonidae  Coregonus alpenae  Coregonus canadensis  Coregonus hoyi  Coregonus johannae	Coregonus nigripinnis Coregonus reighardi Coregonus zenithicus	Salmo chrysogaster Salmo clarki (subspecies) Salmo gilae Salmo platycephalus Salvelinus agassizi Stenodus leucichthys	Order PERCOPSIFORMES Family Amblyopsidae Amblyopsis rosae Amblyopsis spelaea Speoplatyrhinus poulsoni	Order CYPRINODONTIFORMES Family Aplocheilidae Rivulus robustus	Family Cyprinodontidae Campellolebias brucei Crenichthys baileyi Crenichthys nevadae Cualac tessellatus

	I Brazil	I Brazil	I Brazil	I Brazil	I Brazil	E Mexico	R Mexico	R Mexico	R Mexico	E U.S.A.	V U.S.A.	E U.S.A.	V Mexico, U.S.A.	E Mexico	R Mexico	Ex [Mexico]	R Mexico	E Mexico, U.S.A.		V Mexico	V U.S.A.	V Mexico	E U.S.A.	R Mexico	R U.S.A.	R Mexico	V U.S.A.	Ex [U.S.A.]	Ex [U.S.A.]	V U.S.A.	V U.S.A.	V Turkey	V Mexico	I Egypt	E Mexico	E Bolivia	R Brazil
		Ginger Pearlfish	Minute Pearlfish	Opalescent Pearlfish	Splendid Pearlfish	Potosi Pupfish	Bolson Pupfish	Blackfin Pupfish	Cuatro Cienegas Pupfish	Leon Springs Pupfish	Devils Hole Pupfish	Comanche Springs Pupfish	Conchos Pupfish	Carbonera Pupfish	Thicklip Pupfish	Parras Pupfish	Bigscale Pupfish	Desert Pupfish	Maya Pupfish	Mezquital Pupfish	Amargosa Pupfish	Bighead Pupfish	Owens Pupfish	Vertical Jaw Pupfish	White Sands Pupfish	Largefin Pupfish	Pahrump Killifish	Ash Meadows Killifish	Whiteline Topminnow	Barrens Topminnow	Waccamaw Killifish	Scaleless Killifish	Sardinilla Cuatro Cienegas		Caterina Pupfish		Brasilia Lyrefin
Cynolehias constanciae		-1		Cynolebias opalescens	Cynolebias splendens						Cyprinodon diabolis		01	<del>-</del> 1.	اب		ΕI	-1						471		Cyprinodon verrecundus	Empetrichthys latos	Empetrichthys merriami	:01.		Fundulus waccamensis	Kosswigichthys asquamatus	Lucania interioris	Micropanchax schoelleri	Megups 1 on aporus	Urestias cuvieri	Simpsonichthys boitoner

V Mexico V Mexico V Mexico R Mexico	R Mexico Ex [U.S.A.] E U.S.A. E U.S.A. R Mexico R Mexico R Mexico R Mexico R Mexico	V U.S.A.	I Malaysia R U.S.A. Ex [U.S.A.] R U.S.A. V U.S.A.	R U.S.A. V U.S.A.
Opal Goodeid Striped Goodeid Rainbow Goodeid Golden Skiffia Potosi Goodeid	Guayacon de San Gregorio Amistad Gambusia Big Bend Gambusia San Marcos Gambusia Clear Creek Gambusia Guayacon de Hacienda Dolores Guayacon de Cuatro Cienegas Pecos Gambusia Gila Topminnow Monterrey Platyfish Cuatro Cienegas Platyfish	Key Silverside Waccamaw Silverside	Rough Sculpin Utah Lake Sculpin Bear Lake Sculpin Shoshone Sculpin Klamath Lake Sculpin Pygmy Sculpin	Roanoke Bass Suwannee Bass Guadalupe Bass
Family Goodeidae  Allotoca maculata Ataeniobius toweri Characodon lateralis Skiffia francescae Xenoophorus captivus	Family Poeciliidae  Gambusia alvarezi Gambusia amistadensis Gambusia gaigei Gambusia georgei Gambusia heterochir Gambusia longispinis Gambusia longispinis Gambusia coccidentalis Xiphophorus couchianus Xiphophorus gordoni		Phallostethus dunckeri  Order SCORPAENIFORMES  Family Cottidae  Cottus asperrimus  Cottus extensus  Cottus greenei  Cottus princeps  Cottus pygmaeus	Order PERCIFORMES Family Centrarchidae Ambloplites cavifrons Micropterus notius Micropterus treculi

U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A.	U.S.A. U.S.A. U.S.A. U.S.A. Rumania
~>>~>ш~~~~~ш~~>>~ш~>>>~	
Crystal Darter Eastern Sand Darter Sharphead Darter Coppercheek Darter Conchos Darter Slackwater Darter Ashy Darter Coldwater Darter Kanawha Darter Kanawha Darter Redband Darter Redband Darter Niangua Darter Niangua Darter Paleback Darter Watercress Darter Niangua Darter Saluda Darter Bayou Darter Bayou Darter Coldwid Darter Bayou Darter Bayou Darter Bayou Darter Bayou Darter Bayou Darter Coldline Darter Trispot Darter Balkhash Perch Amber Darter Goldline Darter Blotchside Logperch Bluestribe Darter	Consauga Logperch Freckled Darter Longhead Darter Longnose Darter Leopard Darter Roanoke Logperch Snail Darter Asprete
Family Percidae  Ammocrypta asprella  Ammocrypta pellucida  Etheostoma australe  Etheostoma australe  Etheostoma australe  Etheostoma cinereum  Etheostoma c	jenkinsi lenticula macrocephal nasuta pantherina rex tanasi tanasi hthys valsar lly Sciaeni

	V Mexico	V Mexico	V Mexico	R Mexico	R Mexico	V Cameroon	V Cameroon	v Philippines	V Cameroon	V Cameroon	V Cameroon	V Cameroon	V Cameroon	V Cameroon	V Cameroon	V Cameroon	V Cameroon		R U.S.A.	V U.S.A.	R U.S.A.		R Sri Lanka	V Sri Lanka	R Sri Lanka
	Mojarra Caracolera	Mojarra	Mojarra	Mojarra	Mojarra	Dikume	Konye	Sinarapan	Myaka Myaka	Pungu	Fissi	Unga	Leka Keppe	Kululu	Nsess	Mongo	Pindu		Tidewater Goby	Lizard Goby	O'opu Nopili		Combtail	Ornate Paradisefish	Smooth Breasted Snakehead
Comily Cichlidge	Cichlasoma bartoni	Cichlasoma labridens	116			Konia dikume	Konia eisentrauti	Mistichthys luzonensis	Myaka myaka	Pungu maclareni	Sarotherodon caroli	Sarotherodon linnellii	Sarotherodon lobbergeri	Sarotherodon steinbachi	Stomatepia mariae	Stomatepia mongo		Family Gobiidae	Eucyclogobius newberryi	lentipes concolor	Sicvolum stimpsoni	Family Belontiidae	Belontia signata	Malpulutta kretseri	Family Chamidae

Invertebrates		U.S.A.		Mediterranean Sea, North-east Atlantic Ocean	Mediterranean Sea, Pacific Ocean	U.K., North America	Caribbean, Indo-Pacific		U.S.A. [Tasmania] U.S.A.	Invertebrates
		¥		×	5	>	5		ж Ж С:	
	Phylum CILIOPHORA	Tartar's Stentor	Phylum CNIDARIA	Broad Sea Fan	Precious Corals (20 species)	Starlet Sea Anemone	Black Coral (£ 150 species)	Phylum PLATYHELMINTHES	Malheur Cave Planarian Lake Pedder Planarian Holsinger's Groundwater Planarian Biggers' Groundwater Planarian	
	CLASS POLYHYMENOPHOREA	Order HETEROTRICHIDA Family Stentoridae Stentor introversus	CLASS ANTHOZOA	Order GORGONACEA Family Plexauridae	Family Coralliidae	Order ACTINIARIA Family Edwardsiidae	Order ANTIPATHARIA Family Anthipathidae	CLASS TURBELLARIA	Order TRICLADIDA Family Kenkiidae Kenkia rhynchida Romankenkius pedderensis Sphalloplana holsingeri Sphalloplana subtilis	

## Phylum NEMERTEA

#### CLASS ENOPLA

Land Nemertines			
Order HOPLONEMERTEA Family Prosorhochmidae	Antiponementes attisonae Argonementes hillii Argonementes stocki	Geonemertes rodericana Katechonemertes nightingaleensis Leptonemertes chalicophora	Pantinonemertes agricola Pantinonemertes enalios Pantinonemertes Winsori

Madeira, Azores, Canary Is

Australia Australia

Bermuda

rristan da Cunha

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New Zealand Australia Australia Australia Rodrigues

### Phylum MOLLUSCA

Indo-Pacific

	CT	н	ы,ы н н н н н н н н >
)A	Green Snail	Utah Roundmouth Snail	St George Snail Blue Spring Aphaostracon Wekiwa Springs Aphaostracon Compact Hydrobe Snail Fenney's Spring Hydrobe Snail Helicoid Spring Snail Enterprise Spring Snail Ponderous Spring Snail Seminole Spring Snail Wekiwa Spring Snail Coahuilix de Hubbs Snail
Order ARCHAEOGASTROPODA	Family Turbinidae	Order MESOGASTROPODA Family Valvatidae	Family Hydrobiidae  Amnicola deserta Aphaostracon asthenes Aphaostracon monas Aphaostracon xynoeiictus Cincinnatia helicogyra Cincinnatia moroensis Cincinnatia parva Cincinnatia ponderosa Cincinnatia ponderosa Cincinnatia wakiwae Cincinnatia wakiwae Coahuilix hubbsi

U.S.A. U.S.A.

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Mexica

CLASS GASTROPODA

I U.S.A. V Mexico V Mexico	I C.S.A.	V U.S.A.		I U.S.A.	I U.S.A.	V Mexico	V Mexico	V Mexico	V Mexico	V Mexico	V Mexico	V Mexico	V Mexico	I U.S.A.	I U.S.A.	I U.S.A.	. A.v.A.	. V. V. A.	. A.v.D.	1 U.S.A.	₩ 	v U.S.A.	I U.S.A.	I U.S.A.	I U.S.A.	V U.S.A.	I U.S.A.	I U.S.A.	. Y.o. Y.	.A.c.O
Phantom Cave Snail Miller's Snail Durangonella de Coahuila Snail	Point of Rocks Spring Snail Pahranagat Valley Turban Snail	Roswell Fontelicella	Giant Columbia River Spire Snail		Obese Marstonia Snail	Mexipyrgus de Carranza Snail	Mexiporqus de Escobeda Snail		arral	Mexipyrgus de East El Mojarral Snail	Mexithauma de Cienegas Snail	Nymphophilus de Minckley Snail	Paludiscala de Oro Snail					Cheatum's Snail	White River Shail	California Brackish Water Shail		Pecos Assiminea Snail	Anthonyle River Spail	Crass River Snail	Albany River Snail	Spiny River Snail	Mainstream River Snail	Armigerous River Snail	Dutton's River Shail	Geniculate River Snail
Cochliopa texana Cochliopina milleri Durangonella coahuilae	Fluminicola avernalis Fluminicola erythopoma Fluminicola merriami	Fontelicella sp.	Fonticella neomexicana Lithoglyphus columbiana	Marstonia agarhecta		Mexipyrgus carranzae	Mexiporgus cital Incegius					Nymphophilus minckleyi	Paludiscala caramba	Somatogyrus catanotus		Somatogyrus tenax	Stiobia nana			Tryonia imitator		Assiminea sp.	Family Fleuroceridae	Athearni Crassa		To fluvialis	Leptoxis praerosa	Lithasia armigera		Lithasia geniculata

I U.S.A. I U.S.A. I U.S.A.	CT Caribbean	R Indo-Pacific	K Netherlands	I U.S.A. V Europe I U.S.A.	I U.S.A.	1 U.S.A. U.S.A. U.S.A.	E Tasmania I U.S.A. I U.S.A. V Europe I U.S.A.		Ex [Hawaii] E Hawaii E Hawaii
Jay's River Snail Elk River File Snail Rugged River Snail Verrucose File Snail	Queen Conch	Triton's Trumpet	Zuiderzee Doridella Sea Slug	Utah Band Snail Glutinous Snail Fish Springs Pond Snail	Giant Columbia River Limpet	Wyoming Cave Snail Utah Bubble Snail Zion Canyon Snail Snake River Physa Snail Fish Lake Snail	Tasmanian Freshwater 'Limpet' Jackson Lake Snail Cape Fear Ramshorn Snail Greenfield Ramshorn Snail		22 species Little Agate Shells 19 species Little Agate Shells
Lithasia jayana Lithasia lima Lithasia salebrosa Lithasia verrucosa	Family Strombidae	Family Cymatiidae	Order GYMNOSOMATA Family Corambidae	Order BASOMMATOPHORA Family Lymnaeidae Lymnaea kingii Myxas glutinosa Stagnicola pilsbryi	Family Lancidae	Family Physidae  Physa spelunca Physa utahensis Physa zionis Physa sp. Stenophysa microstriata	Family Planorbidae Ancylastrum cumingianus Helisoma jacksonense Helisoma magnificum Segmentina nitida Taphius eucosmius	Order STYLOMMATOPHORA Family Achatinellidae	Achatinella (41 species) Partulina confusa

Ex [Hawaii] V Hawaii Ex [Hawaii] V Hawaii V Hawaii	Ä	E Moorea I American Samoa E Society Is E Society Is Ex [Hawaii]	V Madeira V Madeira V Madeira V Madeira V Madeira	U.S.A.  V Europe  V Europe  V Europe  I U.S.A.
		Short Samoan Tree Snail	San Clemente Island Blunt-top Snail	
Partulina crassa Partulina fusoidea Partulina montagui Partulina perdix Partulina splendida Perdicella kuhnsi	Family Partulidae Partula aurantia Partula gibba Partula mirabilis Partula mooreana Partula maoreana Partula salifana Partula salifana Partula salifana	Partula taeniata Partula tohiveana Samoana abbreviata Samoana diaphana Samoana solitaria Family Amastridae Carelia (all species)	Family Pupillidae Leiostyla abbreviata Leiostyla cassida Leiostyla corneocostata Leiostyla gibba Leiostyla lamellosa Sterkia clementina	Family Vertiginidae Vertigo alabamensis Vertigo angustior Vertigo genesii Vertigo hebardi Vertigo moulinsiana

V Europe	V Europe V Europe	V South Africa	Ne K	V New Zealand	New	E Tasmanîa	E Galapagos Is V New Zealand V New Zealand V New Zealand	U.S.			L Western Samoa
	Kanab Amber Snail	Plant's Gulella Snail	Kauri Amber Snail			Granulated Tasmanian Snail	Flax Snail	Slug Snail Kerry Slug	Painted Snake-coiled Forest Snail	Iowa Pleistocene Snail	
Family Clausiliidae	Family Succineidae  Catinella arenaria  Oxyloma haydeni kanabensis  Oxyloma sarsi	Family Streptaxidae	Family Rhytididae Paryphanta busbyi Paryphanta compta	Paryphanta gilliesi Paryphanta hochstetteri Paryphanta lignaria Paryphanta rossiana		Family Acavidae Anoglypta launcestonensis	Family Bulimulidae Bulimulus (31 endemic species) Placostylus ambagiosus Placostylus bollonsi Placostylus hongii		Family Endodontidae	Discus defloratus Discus macclintocki	Thaumatodon hystricelloides

U.S.A.	American Samoa	U.S.A.		C.S.A.		U.S.A.	U.S.A.	U.S.A.	Papua New Guinea	U.S.A.	U.S.A. U.S.A. U.S.A.	
	Mount Matafao Different Snail		I Archer's Toothed Land Snail Noonday Snail	Clench's Middle-toothed Land Snail I Magazine Mountain Middle-toothed Snail I	Strange Many-whorled Land Snail  Virginia Fringed Mountain Snail  I	Pilsbry's Narrow-apertured Land Snail	Western Three-toothed Land Snail I Karok Indian Snail V	Yate's Snail	Manus Green Tree Snail	I Idaho Banded Mountain Snail	Vortex 2 nded Mountain Snail Coalville Mountain Snail Carinated Striate Banded Mountain Snail I Walton's Banded Mountain Snail	
Family Helicodiscidae  Helicodiscus diadema Helicodiscus hexodon	Family Helicarionidae	Family Zonitidae Glyphyalinia pecki Paravitrea clappi	Family Polygyridae  Ashmunella pasonis  Mesodon archeri  Mesodon clarki nantahala	Mesodon clenchi Mesodon magazinensis	Polygyra peregrina Polygyriscus virginianus Stenotrema hubrichti	pilsbryi	Triodopsis muttani magnidentata Triodopsis occidentalis Vespericola karokorum	Family Ammonitellidae	Family Camaenidae	01.5	Oreohelix jugalis jugalis Oreohelix peripherica weberiana Oreohelix strigosa goniogyra Oreohelix waltoni	

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Allyn Smith's Banded Snail				Nicklin's Peninsula snail			Banded Dine Snail	Concentrated Spail	Fraternal Snail	Gabb's Snail		Colorado Desert Snail	Prickly Pear Snail		California McCoy Snail			Rocky Coast Snall	יוומומון וספווו רפ סוומור			Irinity Bristle Snail											Cima Discula	;	Roman Snail	
Helminthoglypta allynsmithi Helminthoglypta arrosa nomoensis			Helminthoglypta mohaveana	mick iniana	Helminthoglypta nickliniana bridgesi	Helminthoglybta traski coelata	-	- 2		-4	-			rowelli		Monadenia circumcarinata	-14	Monadenia hillebrandi vocemitancio		Monadania mormonim bironton	MOT MOTION			-	Sonorella metcalti	Family Helicidae	Caseolus calculus	Caseolus commixta	401				Discula turricula	Geomitra moniziana		Hellx subplicata

R France, Spain	CT Indo-Pacific CT Indo-Pacific	I U U.S.A. I U.S.A. I U.S.A. I U.S.A.	V U.S.A.	U.S.A.		EX [U.S.A.] E U.S.A. I U.S.A. I U.S.A.	EX: [U.S.A.]  EX: [U.S.A.]  I U.S.A.]  EX: [U.S.A.]  EX: [U.S.A.]  EX: [U.S.A.]  EX: [U.S.A.]
Escargot de Quimper	Black-lipped Pearl Oyster Gold-lipped Pearl Oyster	Dwarf Wedge Mussel	Wheeler's Pearly Mussel James River Spiny Mussel Savanah Shore Missel	Birdwing Pearly Mussel Birdwing Western Fan-shell Pearly Mussel Eastern Fan-shell Pearly Mussel	Tampico Pearly Mussel Dromedary Pearly Mussel Cape Fear Spike Pearly Mussel	Recovery Pearly Mussel Georgia Spiny Mussel Tar River Spiny Mussel Waccamaw Spike Waccamaw Lake Pearly Mussel	Arc-form Pearly Mussel Arcuate Pearly Mussel Curtis Pearly Mussel Yellow-blossom Pearly Mussel Acorn Pearly Mussel Lefevre's Pearly Mussel
Family Elonidae  Elona quimperiana  CLASS BIVALVIA	Order PTERIOIDA Family Pteriidae Pinctada margaritifera Pinctada maxima	Order UNIONOIDA  Family Unionidae  Alasmidonta arcula Alasmidonta atropurpurea Alasmidonta heterodon Alasmidonta robusta Alasmidonta robusta Alasmidonta wrightiana	olli	Conradilla caelata Cyprogenia aberti Cyprogenia irrorata	Cyrtonaias tampicoensis tecomatensis Dromus dromas Elliptio marsupiobesa	Elliptio spinosa Elliptio steinstansana Elliptio Maccamawensis	Epioblasma arcaeformis Epioblasma biemarginata Epioblasma capsaeformis Epioblasma flexuosa Epioblasma florentina curtisi Epioblasma florentina florentina Epioblasma haysiana Epioblasma lefevrei

EX. [U.S.A.] EX. [U.S.A.] E U.S.A. EX [U.S.A.]	п п п п п п п п п п п п п п п п п п п	п п п п п п п п п п п п п п п п п п п
Stone's Pearly Mussel Lewis Pearly Mussel Southern Acorn Riffle Shell Penitent Mussel Fine-rayed Pearly Mussel Sampson's Pearly Mussel Steward's Pearly Mussel White Cat's Paw Mussel Green-blossom Pearly Mussel	Tan-blossom Pearly Mussel Tubercled-blossom Pearly Mussel Snuffbox Turgid-blossom Pearly Mussel Tan Riffle Shell Mussel Virginia Spiny Mussel Fine-rayed Pigtoe Pearly Mussel Shiny Pigtoe Pearly Mussel Cracking Pearly Mussel Higgin's Eye Pearly Mussel Pick Musket Pearly Mussel	Scale Shell Slab-side Pearly Mussel Nicklin's Pearly Mussel Golf Stick Pearly Mussel Little Winged Pearly Mussel White Warty Back Pearly Mussel Cumberland Pigtoe Northern Club Shell Curtus' Mussel Marshall's Mussel Rough Pigtoe Pearly Mussel
Epioblasma lewisi Epioblasma metastriata Epioblasma othcaloogensis Epioblasma personata Epioblasma propingua Epioblasma sampsoni Epioblasma stewardsoni Epioblasma sulcata delicata Epioblasma sulcata sulcata Epioblasma torulosa gubernaculum	torulosa triquetra turgidula walkeri collina cuneolus edgariana lata higginsi orbiculata orbiculata streckeri streckeri	

U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A.	U.S.A. Europe Europe, North America U.S.A.	Indo-Pacific Indo-Pacific Indo-Pacific Indo-Pacific Indo-Pacific Indo-Pacific	U.S.A.		Pacific
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Fat Pocketbook  Rough Rabbit's Foot Pearly Mussel Rough Maple Leaf Pearly Mussel Appalachian Monkey Face Pearly Mussel Stirrup Shell Salamander Mussel Pale Lilliput Pearly Mussel Choctaw Pearly Mussel Ortmann's Pearly Mussel Fine-rayed Purple Pearly Mussel Cumberland Bean Pearly Mussel	Spectacle Case Pearly Mussel Spengler's Freshwater Mussel Freshwater Pearl Mussel Alabama Pearl Shell	Horse's Hoof Clam China Clam Crocus Clam Southern Giant Clam Giant Clam Small Giant Clam		Phylum ANNELIDA	Palolo Worm
Potamilus capax Potamilus inflatus Quadrula cylindrica strigillata Quadrula sparsa Quadrula stapes Simpsoniconcha ambigua Toxolasma cylindrella Villosa choctawensis Villosa ortmanni Villosa perpurea Villosa trabalis	Family Margaritiferidae  Cumberlandia monodonta  Margaritifera auricularia  Margaritifera margaritifera  Margaritifera marrianae	Family Tridacnidae Hippopus hippopus Hippopus porcellanus Tridacna crocea Tridacna derasa Tridacna gigas Tridacna gigas Tridacna gauamosa	Family Sphaeriidae	CLASS POLYCHAETA	Order EUNICIDA Family Eunicidae Eunice viridis

## CLASS HIRUDINOIDEA

Europe		U.S.A. Australia U.S.A.	South Africa South Africa South Africa South Africa	South Africa South Africa	U.S.A.	U.S.A.		Coastal Waters - Japan to Indonesia Atlantic coast of North America Coastal Waters - Japan to Indonesia Coastal Waters - Japan to Indonesia
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Medicinal Leech		Washington Giant Earthworm Giant Gippsland Earthworm Oregon Giant Earthworm	South African Acanthodriline Earthworms	South African Giant Earthworms			Phylum ARTHROPODA Subphylum CHELICERATA	Horseshoe Crabs
Order ARHYNCHOBDELLAE Family Hirudinidae	CLASS OLIGOCHAETA	Order HAPLOTAXIDA Family Megascolecidae Megascolides americanus Megascolides australis Megascolides macelfreshi	Family Acanthodrilidae Chilota (13 species) Diplotrema (16 species) Microscolex (9 species) Udeina (59 species)	Family Microchaetidae Microchaetus (33 species) Tritogenia (5 species)	Family Lutodrilidae	Family Komarekionidae	CLASS MEROSTOMATA	Order XIPHOSURA Family Limulidae Carcinoscorpius rotundicauda Limulus polyphemus Tachypleus gigas Tachypleus tridentatus

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	K Mexico	V Spain I Crete	I U.S.A.	I U.S.A.	I Europe	R Yugoslavia R Yugoslavia R Yugoslavia	V Northern Europe	I U.S.A.	I Bahamas, U.S.A.	R U.S.A. U.S.A. U.S.A.	I U.S.A.
	Red-kneed Tarantula				Ladybird Spider	Kocevje Subterranean Spider Kocevje Subterranean Spider Kocevje Subterranean Spider	Great Raft Spider			No-eyed Big-eyed Wolf Spider Glacier Bay Wolf Spider	
Order ARANEAE	Family Theraphosidae	Family Dipluridae	Family Ctenizidae	Family Telemidae Telema (Whole genus)	Family Eresidae	Family Linyphiidae Troglophantes gracilis Troglophantes similis Troglophantes spinipes	Family Asauridae Dolomedes plantarius	Family Araneidae	Family Gnaphosidae	Family Lycosidae Adelocosa anops Lycosa ericeticola Pardosa diuturna Sosippus placidus	Order PSEUDOSCORPIONIDA Family Neobisiidae

Spider									
U.S.A.		U.S.A.	Western North America Czechoslovakia	U.S.A. U.S.A.	Tasmania Tasmania Tasmania Tasmania	Tasmania, Australia Tasmania	Tasmania	U.S.A. Netherlands Mexico Mexico Mexico	Mexico
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Melones Bay Harvestman	Subphylum CRUSTACEA	Mono Lake Brine Shrimp	Giant Fairy Shrimp					Madison Cave Isopod	
Order OPILIONES Family Phalangodidae Banksula melones	CLASS CRUSTACEA	Order ANOSTRACA Family Artemiidae	Family Branchinectidae Branchinecta gigas Branchinecta paludosa	Order THORACICA Family Balanidae Armatobalanus nefrens Balanus aquila	Order ANASPIDACEA Family Anaspidae Allanaspides helonomus Allanaspides spinulae Anaspides spinulae Anaspides tasmaniae Anaspides tasmaniae Anaspides tasmaniae	Family Koonungidae Koonunga cursor Micraspides calmani	Family Psammaspididae		specciforana therimyaromis

K Mexico K Mexico K Mexico E U.S.A.	v U.K.	1 U.S.A. 1 U.S.A. 1 U.S.A.	I Mexico R Mexico R Mexico	1 U.S.A. 1 U.S.A. 1 U.S.A. 1 U.S.A.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Socorro Isopod		Clifton Cave Isopod Bat Cave Isopod Nickajack Cave Isopod Rye Cove Cave Isopod Lee County Cave Isopod	Parzefall's Stenasellid Wilkens' Stenasellid	Illinois Cave Amphipod Bousfield's Amphipod Noel's Amphipod Diminutive Amphipod Pecos Amphipod	Central Missouri Cave Amphipod Oklahoma Cave Amphipod Pennsylvania Cave Amphipod Florida Cave Amphipod Hobb's Cave Amphipod Tidewater Interstitial Amphipod Arizona Cave Amphipod Balcones Cave Amphipod Bifurcated Cave Amphipod
Family Sphaeromatidae Thermosphaeroma dugesi Thermosphaeroma milleri Thermosphaeroma smithi Thermosphaeroma thermophilum	Family Trichoniscidae	Family Asellidae Caecidotea barri Caecidotea macropoda Caecidotea nickajackensis Lirceus culveri	Family Stenasellidae Mexistenasellus coahuila Mexistenasellus parzefalli Mexistenasellus wilkensi	Crder AMPHIPODA Family Gammaridae Gammarus acherondytes Gammarus bousfieldi Gammarus desperatus Gammarus hyalieioides Gammarus pecos	Family Crangonyctidae Allocrangonyx hubrichti Allocrangonyx bellucidus Crangonyx dearolfi Crangonyx grandimanus Crangonyx hobbsi Stygobromus araeus Stygobromus arizonensis Stygobromus balconius Stygobromus balconius Stygobromus balconius

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Bowman's Cave Amphipod Clanton's Cave Amphipod Burnsville Cove Cave Amphipod Cooper's Cave Amphipod Cascade Cave Amphipod Elevated Spring Amphipod	Greenbrier Cave Amphipod Ephemeral Cave Amphipod Ezell's Cave Amphipod Grady's Cave Amphipod Devil's Sinkhole Amphipod Hara's Cave Amphipod Hay's Spring Amphipod	Malheur Cave Amphipod Tidewater Stygonectid Amphipod Long-legged Cave Amphipod Rubious Cave Amphipod Mackenzie's Cave Amphipod Mountain Cave Amphipod	Bath County Cave Amphipod Norton's Cave Amphipod Onondaga Cave Amphipod Ozark Cave Amphipod Minute Cave Amphipod Peck's Cave Amphipod Pizzini's Amphipod	Wisconsin Well Amphipod Reddell's Cave Amphipod Alabama Well Amphipod Spring Cave Amphipod Stellmack's Cave Amphipod Subtle Cave Amphipod Wengeror's Cave Amphipod Kaui Cave Amphipod
Stygobromus clantoni Stygobromus conradi Stygobromus cooperi Stygobromus dejectus Stygobromus elatus		ici~i~i~i 티티티	Stygobromus mundus Stygobromus onondagaensis Stygobromus ozarkensis Stygobromus parvus Stygobromus pecki Stygobromus pizzinii	Stygobromus reddelli Stygobromus smithii Stygobromus spinatus Stygobromus stellmacki Stygobromus subtilis Stygobromus wengerorum Family Orchestiidae

I U.S.A. E U.S.A. I Puerto Rico	I U.S.A. V U.S.A.	CT North Atlantic CT North-east Atlantic CT North-east Atlantic	I U.S.A.	I U.S.A.	I U.S.A.	I U.S.A.	E U.S.A.		E U.S.A.	I U.S.A.	I U.S.A.	V Europe	R Europe K Europe	Ö	I Madagascar V Tasmania R West Australia R West Australia
Alabama Cave Shrimp California Freshwater Shrimp Mona Cave Shrimp	Texas Cave Shrimp Florida Cave Shrimp	American Lobster European Lobster Norway Lobster	40 m 40 m 40 m 60 m 60 m 60 m 60 m 60 m	Greensboro Burrowing Crayfish	New River Riffle Crayfish	Chickamanga Crayfish	כמפל כן מלו ופון	Louisville Crayfish	Nashville Crayfish	Orlando Cave Crayfish	Pee Dee Lotic Crayfish	Noble Cravfish	White-clawed Crayfish	Shasta Crayfish	Madagascar Freshwater Crayfish Giant Freshwater Crayfish
Family Atyidae Palaemonias alabamae Syncaris pacifica Typhlatya monae	Family Palaemonidae Palaemonetes antrorum Palaemonetes cummingi	Family Nephropidae Homarus americanus Homarus gammarus Nephrops norvegicus	Family Cambaridae	Cambarus catagius			Cambarus zophonastes	Orconectes jeffersoni	Orconectes shoupi	Procambarus acherontis		Family Astacidae	Austropotamobius pallipes	Pacifastacus fortis Pacifastacus nigrescens	Family Parastacidae Astacoides madagascariensis Astacopsis gouldi Cherax crassimanus Engaewa subcoerulea

Order DECAPODA

CT New Zealand CT Caribbean CT Caribbean	R Indo-Pacific	K India, Thailand	K U.S.A.		I Hawaii I Hawaii	Ex [U.S.A.] I U.S.A. I U.S.A. R Australia	I U.S.A.	I U.S.A. I U.S.A.	I U.S.A.	I U.S.A.
Rock Lobster Spotted Spiny Lobster	Coconut Crab	Sand Crab	California Bay Pea Crab	Subphylum UNIRAMIA	Hawaiian Long-palp Bristletail Perkin's Club-palp Bristletail	Pecatonica River Mayfly False Mayfly Diverse Mayfly Large Blue Lake Mayfly	Berner's Two-winged Mayfly	Cahaba Sand-filtering Mayfly Blackwater Sand-filtering Mayfly	Meridion Blackwater Mayfly	American Sand-burrowing Mayfly
Family Palinuridae  Jasus edwardsii Panulirus argus Panulirus guttatus	Family Coenobitidae Birgus latro	Family Hippidae	Family Pinnotheridae	CLASS INSECTA	Order THYSANURA Family Machilidae Machiloides heteropus Machiloides perkinsi	Order EPHEMEROPTERA Family Siphlonuridae Acanthometropus pecatonica Ameletus falsus Isonychia diversa Tasmanophlebia lacus-coerulei	Family Baetidae	Family Oligoneuridae  Homoeoneuria cahabensis Homoeoneuria dolani	Family Heptageniidae	Family Behningiidae

I U.S.A. I U.S.A. Ex [U.S.A.]	I U.S.A. I U.S.A.	I U.S.A.	E South Africa E South Africa	E Australia	V Australia	E Tanzania	R Guatemala, U.S.A. E Australia	I South Africa E Mauritius	I Angola E Mauritius I Cameroon I Sierra Leone I Mozambique
Colorado Burrowing Mayfly West Virginia Burrowing Mayfly Robust Burrowing Mayfly	Frison's Mayfly Spicluose Mayfly Argo Mayfly	Yellow Mayfly			Small Damselfly				
Family Ephemeridae  Ephemera compar Ephemera triplex Pantagenia robusta	Family Ephemerellidae Ceratella frisoni Ceratella spiculosa Ephemerella argo	Family Caenidae Brachycercus flavus	Order ODONATA Family Chlorolestidae Ecchlorolestes peringueyi Ecchlorolestes peringueyi	Family Lestidae	Family Hemiphlebiidae	Family Megapodagrionidae	Family Protoneuridae Noeneura aaroni Nososticta pilbara	Family Platycnemididae Metacnemis angusta Platycnemis mauricana	Family Coenagrionidae  Aciagrion rarum Agriocnemis solitaria Agriocnemis umbargae Argiagrion leoninium Ceriagrion mourae

E Austria, Germany, Switzerland E Europe I Tropical Africa I South Africa V U.S.A. I Hawaii I Seychelles	E Brazil I U.S.A. E Turkey, Syria, Jordan	V India, Nepal  E Australia I Tropical Africa K Wozambique, Zimbabwe I U.S.A. I U.S.A. R U.S.A. R U.S.A. R U.S.A.	
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Frey's Damselfly Southern Damselfly Barrens Bluet Damselfly San Francisco Forktail Damselfly Adytum Damselfly Fallax Damselfly Waianae Damselfly Ugorum Damselfly Leptodemas Damselfly Molokai Damselfly Nigrohamatum Damselfly Blackline Damselfly Blackline Damselfly Oceanic Damselfly		Relict Himalayan Dragonfly Sandhills Clubtail Dragonfly Cherokee Clubtail Dragonfly Diminutive Clubtail Twin-striped Clubtail	
Coenagrion freyi Coenagrion mercuriale Enallagma camerunense Enallagma camerunense Enallagma recurvatum Ischnura gemina Megalagrion adytum Megalagrion amaurodytum peles Megalagrion jugorum Megalagrion leptodemus Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion oahuensis Megalagrion oahuensis Megalagrion pacificum Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion nigrolineatum Megalagrion hirosei Teinobasis alluaudi alluaudi	Family Pseudostigmatidae  Mecistogaster asticta  Family Calopterygidae  Calopteryx angustipennis Calopteryx syriaca	= 0  E  E  0  · · · · ·	Compous grastini

U.S.A. U.S.A. U.S.A. U.S.A. U.S.A.	Australia Australia Australia Madagascar U.S.A. Eastern North America U.S.A. U.S.A. U.S.A.	U.S.A. North Palearctic U.S.A. U.S.A. Tanzania U.S.A.	Europe to Siberia Tropical Africa Belgium, Germany, U.K. India Turkey, U.S.S.R.	New Zealand Australia Madagascar U.S.A. North Africa, West Europe Canada
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Hodge's Clubtail Gulf Clubtail Tennessee Clubtail Dragonfly Septima's Clubtail Dragonfly			L'Aeschne Verte Florida Spiketail Dragonfly	Apalachicola Twilight Skimmer Dragonfly Orange-spotted Emerald
Gomphus hodgesi Gomphus maxwelli Gomphus ozakensis Gomphus parvidens Gomphus sandrius Gomphus septima		lei pes entus si hnidae	Aeshna viridis Anax georgius Brachytron pratense Indophlebia asiatica  Family Cordulegasteridae Cordulegaster mzymtae	Family Corduliidae Antipodochlora braueri Austrocordulia "t" Libellulosoma minuta Neurocordulia clara Oxygastra curtisii Somatochlora brevicincta

R U.S.A. R Eastern North America R U.S.A. R U.S.A. V U.S.A.	K Congo K Sierra Leone K Tropical Africa E Iraq, Israel, Turkey I Guinea Bissau K Zaire E Europe, West Siberia E Japan K U.S.A. V Angola, Zambia E Australia I Tropical Africa I Gabon Ex? [St Helena] I Sao Tome K Iran	V Dominican Republic	R U.S.A. V France, Portugal, Spain K U.S.A.	I Puerto Rico	E Spain
Calverts' Emerald Ohio Emerald Dragonfly Big Thicket Emerald Dragonfly Banded Bog Skimmer Dragonfly	Leucorrhine à Front Blanc Leucorrhine à Large Queue Purple Chaser		Shining Macromia Dragonfly Wabash Belted Skimmer Dragonfly	Tuna Cave Roach	
Somatochlora calverti Somatochlora incurvata Somatochlora margarita Somatochlora ozarkensis Williamsonia lintneri	Family Libellulidae  Aethiothemis wataliki Allorhizucha campioni Anectothemis apicalis Brachythemis liberiensis Congothemis longistyla Leucorrhinia albifrons Libellula angelina Libellula angelina Libellula jerseana Monardithemis flava Orthetrum rubens Palpopleura albifrons Sympetrum dilatatum Trithemis hartwigi Trithemis nigra Urothemis thomasi	Family Synlestidae Phylolestes ethelae	Family Macromiidae Macromia margarita Macromia splendens Macromia wabashensis	Order BLATTARIA Family Blattidae Aspiduchus cavernicola	Order MANTODEA Family Mantidae Apteromantis aptera

V U.S.A.	I U.S.A. I U.S.A. V New Zealand V New Zealand V New Zealand V New Zealand I New Zealand I U.S.A.	1 U.S.A. 1 U.S.A. 1 U.S.A. 1 U.S.A.	V Spain I Hawaii I U.S.A. I U.S.A. I Hawaii I U.S.A. Ex [U.S.A.] I U.S.A.	I U.S.A. I Hawaii I Hawaii
Mount St Helens' Grylloblattid	Kelso Jerusalem Cricket Port Conception Jerusalem Cricket Herekopare Island Weta Poor Knights Weta Wetapunga Stephens Island Weta Coachella Valley Jerusalem Cricket Navajo Jerusalem Cricket	Arizona Giant Sand Treader Cricket Kelso Giant Sand Treader Cricket Coachelia Giant Sand Treader Cricket Samwell Cave Cricket Tanner's Black Cumel Cricket	Nihoa Banza Conehead Katydid Big Pine Key Conehead Katydid Keys Short-winged Conehead Katydid Remote Conehead Katydid Middlekauf's Shieldback Katydid Antioch Dunes Shieldback Katydid Santa Monica Shieldback Katydid Predatory Bush Cricket	Prairie Mole Cricket Howarth's Cave Cricket Schauinsland's Bush Cricket Kaumana Cave Cricket
Order GRYLLOBLATTARIA Family Grylloblattidae Grylloblatta chirurgica Order ORTHOPTERA Family, Stongarding (1909)	Armopelmatus kelsoensis Armopelmatus kelsoensis Armopelmatus muwu Deinacrida carinata Deinacrida fallai Deinacrida rugosa Deinacrida tibiospina Stenopelmatus cahuilaensis Stenopelmatus navajo	Family Rhaphidophoriidae Daihinibaenetes arizonensis Macrobanetes kelsoensis Macrobanetes valgum Pristoceuthophilus sp. Utabaenetes tanneri	Family Tettigoniidae Baetica ustulata Banza nihoae Belocephalus micanopy Belocephalus sleighti Conocephaloides remotus Idiostatus middlekaufi Neduba extincta Neduba longipennis Saga pedo	Family Gryllotalpidae  Gryllotalpa major  Family Gryllidae  Caconemobius howarthi  Caconemobius schauinslandi  Caconemobius varius

I Hawaii I U.S.A. I Hawaii	I U.S.A. I U.S.A.	I U.S.A. I U.S.A. I U.S.A.	I U.S.A. I U.S.A.	Ex [Lord Howe I.]	E St Helena	I U.S.A. I U.S.A.	I U.S.A.	I U.S.A.	I U.S.A.
Keys Scaly Cricket Oahu Deceptor Bush Cricket Laricis Tree Cricket Volcanoes Cave Cricket Kauai Thin-footed Bush Cricket	Pinaleno Monkey Grasshopper Desert Monkey Grasshopper	Idaho Point-headed Grasshopper Michigan Bog Grasshopper Siskiyou Chloealtis Grasshopper	Sierra Pygmy Grasshopper Torreya Pygmy Grasshopper	Lord Howe Island Stick-insect	St Helena Earwig	Meltwater Stonefly Wahkeena Falls Flightless Stonefly	Lake Tahoe Benthic Stonefly	Schoolhouse Springs Stonefly	Leon River Stonefly
Cycloptilum irregularis Leptogryllus deceptor Oecanthus laricis Thaumatogryllus cavicola Thaumatogryllus variegatus	Family Eumastacidae Eumorsea pinaleno Psychomastix deserticola	Family Acrididae  Acrolophitus pulchellus Appalachia arcena Chloaeltis aspasma Spharagemon superbum	Family Tetrigidae Tetrix sierrana Tettigidea empedonepia	Order PHASMATOPTERA Family Phasmatidae	Order DERMAPTERA Family Labiduridae	Order PLECOPTERA Family Nemouridae Lednia tumana Nemours wahkeena	Family Capniidae	Family Leuctridae	Family Taeniopterygidae

I U.S.A. I U.S.A. I U.S.A.	Ex [U.S.A.]	I U.S.A.	E Australia	R Australia R Australia	I Намаїї	E India	I U.S.A.	E U.S.A.	I U.S.A.	I U.S.A.
Cheaha Stonefly Georgia Stonefly Hanson's Appalachian Stonefly	Robert's Stonefly	Fender's Stonefly	Otway Stonefly	Mount Kosciusko Wingless Stonefly Mount Donna Buang Wingless Stonefly	Swezey's Zoroapteran	Pygmy Hog Sucking Louse	Saratoga Springs Bug	Ash Meadows Bug Amargosa Bug	Aaa Water Treader Bug	Dry Creek Cliff Strider Bug
Family Perlidae Beloneuria jamesae Beloneuria georgiana Hansonoperla appalachia	Family Chloroperlidae	Family Peltoperlidae	Family Eustheniidae	Family Gripopterygidae Leptoperla cacuminis Riekoperla darlingtoni	Order ZORAPTERA Family Zorotypidae	Order ANOPLURA Family Haematopinidae	Order HEMIPTERA Family Belostomatidae	Family Naucoridae	Family Mesoveliidae	Family Macroveliidae

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Phyllostegian Leaf Bug Lanai Leaf Bug Oshu Leaf Bug	Pulchrus Thread Bug Smith's Reduviid Bug Ana Wingless Thread Bug Mount Tantalus Wingless Thread Bug Robert's Wingless Thread Bug Selium Wingless Thread Bug	Mauna Loa Seed Bug Kauai Band-legged Seed Bug Mount Haleakala Seed Bug Villosan Flightless Seed Bug French Frigate Shoal Seed Bug Necker Goosefoot Seed Bug Nihoae Seed Bug Necker Bunchgrass Seed Bug Bryan's Seed Bug Perkin's Seed Bug	Annectans Bug Hawaiian bug	Kauai Particoloured Planthopper Wild Cotton Planthopper Lanai Planthopper Lihue Planthopper Barber's Point Planthopper	Mt. Tantalus Shortwing Fern Planthopper Iao Valley Planthopper Bridewell's Planthopper
Family Miridae Cyrtopeltis phyllostegiae Kalania hawaiiensis	Family Reduviidae  Empicoris pulchrus Siacella smithi Nesidiolestes ana Nesidiolestes insularis Nesidiolestes roberti Nesidiolestes selium	Family Lygaeidae  Metrarga obscura Neseis alternatus Neseis haleakalae Nesocryptias villosa Nysius frigatensis Nysius neckerensis Nysius nihoae Nysius sulfusus Oceanides berkensi Oceanides perkensi Oceanides rugosiceps	Family Rhopalidae Ithamar annectans Ithamar hawaiiense	Crder HOMOPTERA Family Cixiidae Oliarus consimilis Oliarus discrepans Oliarus lanaiensis Oliarus lihue Oliarus myoporicola	Family Delphacidae  Nesorestias filicicola  Nesosydne acuta Nesosydne bridwelli

I Hawaii I Hawaii I Hawaii I Hawaii	V U.S.A. V Canada V U.S.A.	I U.S.A.	Ex [Hawaii] Ex [Hawaii]	I Hawaii, U.S.A.	K South & Central Europe	Hawaii Hawaii Hawaii Hawaii	K Europe K Europe	K Europe K Europe Hawaii K Europe
Nahiku Planthopper Glenwood Planthopper Kusche's Planthopper Diamond Head Planthopper Long-footed Planthopper Keanae Planthopper	Cassini Periodical Cicada Decim Periodical Cicada Decula Periodical Cicada	Red-veined Prairie Leafhopper				Haleakala Spongillafly Cooke's Spongillafly Lobe-wing Spongillafly Swezey's Spongillafly Usinger's Spongillafly		Molokai Antlion
Nesosydne cyrtandrae Nesosydne cyrtandricola Nesosydne kuschei Nesosydne leahi Nesosydne longipes Nesosydne longipes	Family Cicadidae Magicicada cassini Magicicada septendecim	Family Cicadellidae	Family Pseudococcidae	Order NEUROPTERA Family Ithonidae	Family Mantispidae	Family Hemerobiidae  Nesothauma halakalae Pseudopsectra cookeorum Pseudopsectra lobipennis Pseudopsectra swezeyi Pseudopsectra usingeri	Family Ascalaphidae Libelloides Libelloides Libelloides macaronius	Family Myrmeleontidae Acanthaclisis occitanica Dendroleon pantherinus Distoleon tetragrammicus Eidoleon perjurus Myrmeleon formicarius

I U.S.A.  E St Helena V Europe, North Africa, U.S.S.R. E Italy V U.S.A. V Malaysia I U.S.A.	1 U U S S S S S S S S S S S S S S S S S	I U.S.A. I U.S.A. I U.S.A. I U.S.A. I U.S.A. E Central Europe, Siberia E Central & West Europe I U.S.A.
Beller's Ground Beetle Puppenrauber Blue Ground Beetle Chost Walker Beetle Schaum's Blue Ridge Ground Beetle	Idaho Dunes Tiger Beetle Cazier's Tiger Beetle Smyth's Tiger Beetle Columbia River Tiger Beetle Columbia River Tiger Beetle North-eastern Beach Tiger Beetle Oblivious Tiger Beetle Coral Pink Dunes Tiger Beetle Tiger Beetle Cobblestone Tiger Beetle Los Olmos Tiger Beetle Subtropical Blue-black Tiger Beetle Neojuvenile Tiger Beetle Puritan Tiger Beetle Greenest Tiger Beetle	Hungerford's Crawling Water Beetle Disjunct Crawling Water Beetle Death Valley Diving Beetle Fig Seed Diving Beetle Fig seed Diving Beetle Elusive Diving Beetle Folkert's Diving Beetle Woolly Diving Beetle Leech's Skyline Diving Beetle Simple Diving Beetle
Order COLEOPTERA  Family Carabidae  Agonum belleri Aplothorax burchelli Calosoma sycophanta Carabus intricatus Carabus olympiae Elaphrus viridis Mormolyce phyllodes Sphaeroderus schaumi shenandoah	Family Cicindela arenicola Cicindela cazieri Cicindela columbica Cicindela dorsalis dorsalis Cicindela Limbata albissima Cicindela marginata Cicindela marginipennis Cicindela marginipennis Cicindela nevadica olmosa Cicindela nevadica olmosa Cicindela puritana Cicindela puritana Cicindela puritana Cicindela puritana Cicindela cosoleta neojuvenalis Cicindela puritana Cicindela cosoleta neojuvenalis Cicindela puritana	Family Haliplidae  Brychius hungerfordi Haliplus nitens  Family Dyfiscidae  Agabus rumppi Desmopachria conchramis Dytiscus latissimus Graphoderus bilineatus Haideoporus texanus Hydroporus elusivus Hydroporus folkertsi Hydroporus leechi Hydroporus simplex

I U.S.A. I U.S.A. Ex? [U.S.A.] I U.S.A. I U.S.A. I U.S.A.	I U.S.A.	I U.S.A. I U.S.A. I U.S.A. I U.S.A. I U.S.A.	I U.S.A.	E Eastern North America	I U.S.A. I U.S.A. I U.S.A. I U.S.A.	E Hawaii V New Zealand V New Zealand	V U.S.A.
Spangler's Diving Beetle Sulphur Springs Diving Beetle Utah Diving Beetle Moro Lake Diving Beetle Curved-foot Diving Beetle Narrow-foot Diving Beetle Travertire Band-thigh Diving Beetle Sylvan Diving Beetle	Red Hills Unique Whirligig Beetle	Maureen's Minute Moss Beetle Maureen's Moss Beetle Animas Minute Moss Beetle Texas Minute Moss Beetle Utah Minute Moss Beetle Wing-shoulder Minute Moss Beetle Indiana Minute Moss Beetle	Blind Cave Beetle	American Burying Beetle	Leech's Water Scavenger Beetle Utah Water Scavenger Beetle Arizona Water Scavenger Beetle Ricksecker's Water Scavenger Beetle Seclusive Water Scavenger Beetle	Kauai Flightless Stag Beetle	Caracara Commensal Scarab Beetle
Hydroporus spangleri Hydroporus sulphurius Hydroporus utahersis Hygrotus artus Hygrotus curvipes Hygrotus diversipes Hygrotus fontinalis Hygrotus sylvanus	Family Gyrinidae Spanglerogyrus albiventris	Family Hydraenidae  Gymnocthebius maureenae Hydraena maureenae Limnebius aridus Limnebius texanus Limnebius utahensis Ochthebius crassalus Ochthebius putnamensis Ochthebius reticulatus	Family Leiodidae	Family Silphidae	Family Hydrophilidae Chaetarthria leechi Chaetarthria utahensis Cymbiodyta arizonica Hydrochara rickseckeri	Family Lucanidae Apterocychus honoluluensis Dorcus auriculatus Dorcus ithaginis	Family Trogidae

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	Ciervo Scarab Beetle Cresent Dune Scarab Beetle Hardy's Scarab Beetle	Large Scarab Beetle Exiguous Scarab Beetle Archbold Scarab Beetle Tibial Scarab Beetle	Tortoise Commensal Scarab Beetle Big Pine Key Dung Beetle Woodruff's Dung Beetle Tortoise Commensal Scarab Beetle Miami Roundhead Scarab Beetle	Hercules Beetle Hercules Beetle Hercules Beetle Hercules Beetle	Kelso Dune Scarab Beetle Spiny Florida Sandhill Scarab Beetle White Sand Bear Scarab Beetle Pacific Sand Bear Scarab Beetle Scrub Island Burrowing Scarab Beetle Tortoise Commensal Scarab Beetle	Hermit Beetle Ocala Burrowing Scarab Beetle Woody Gulf Dune Scarab Beetle Saline Valley Snow-front Scarab Spotted Warner Valley Dunes Scarab Barbate Scarab Beetle Atascodera Scarab Beetle Cromwell Chafer Giuliani's Dune Scarab Beetle Frost's Spring Scarab Beetle	Tantula Scarab Beetle Scrub Palmetto Flower Scarab Beetle
Family Geotrupidae  Typhaeus hiostius		Archomala exigua Anomala eximia Anomala tibialis	Aphodius Tordi Aphodius troglodytes Ataenius superficialis Ataenius Woodruffi Copris gopheri Cyclocephala miamiensis	Dynastes hercules Dynastes hercules glaseri Dynastes hercules hercules Dynastes hercules reidi	Glaresis arenata Gronocarus multispinosus Lichnanthe albopilosa Lichnanthe ursina Mycotrupes pedester Onthophagus furacatus Onthophagus polyphemi	Oryctes chevrolati Osmoderma eremita Peltotrupes youngi Polylamina pubescens Polyphylla anteronivea Polyphylla barbata Polyphylla harbata Polyphylla nubila Prodontria lewisi Pseudocotalpa giulianii	Serica tantula Trigonopelastes floridana

South America

E Europe	1 U.S.A. 1 U.S.A. 1 U.S.A. 1 U.S.A.		1 U.S.A. 1 U.S.A. 1 U.S.A. 1 U.S.A.	V Chatham Is, New Zealand V New Zealand I Canada, U.S.A. E Hawaii	I U.S.A.
Goldstreifiger	Wawawona Riffle Beetle Parker's Riffle Beetle Brownish Riffle Beetle Giuliani's Riffle Beetle Little Riffle Beetle	Robust Riffle Beetle Stephan's Riffle Beetle Marron's San Carlos Riffle Beetle Brown's Riffle Beetle Brown's Riffle Beetle Pinnacles Riffle Beetle Scott Riffle Beetle Scott Riffle Beetle Moapa Warm Spring Riffle Beetle Moapa Warm Springs Riffle Beetle Gammon's Riffle Beetle Gammon's Riffle Beetle	Beer's False Water Penny Beetle Burnell's False Water Penny Beetle Stark's False Water Penny Beetle Variegated False Water Penny Beetle Arizona Water Penny Beetle White Mountains Water Penny Beetle	Hatch's Click Beetle Hawaiian Click Beetles Necker Click Beetles	Dohrn's Elegant Eucnemid Beetle
Family Buprestidae  Buprestis splendens		Heterelmis stephani Huleechius marroni carolus Huleechius marroni carolus Microcylloepus browni Optioservus browni Optioservus canus Optioservus phaeus Stenelmis calida calida Stenelmis douglasensis Stenelmis gammoni Zaitzeva thermae	Family Psephenidae  Acneus beeri Acneus burnelli Alabamaubria starki Dicranopselaphus variegatus Psephenus arizonensis Psephenus montanus	Family Elateridae  Amychus candezei  Amychus granulatus Eanus hatchi Eopenthes (17 species) Itodacnus (whole genus)	Family Eucnemidae

U.S.A.	Намаїї	Northern & Central Europe	Mexico, U.S.A. U.S.A. Seychelles	U.S.A. Mexico, U.S.A. U.S.A. U.S.A.	U.S.A.	Hawaii Hawaii Hawaii U.S.A. U.S.A. Brazil, Peru Central Europe, U.S.S.R. Hawaii Hawaii Hawaii
Florida Intertidal Firefly Everglades Browing Firefly	Piko Anobiid Beetle	Scharlachkfer	Globose Dune Beetle San Joaquin Dune Beetle Frigate Island Giant Tenebrionid Beetle R	Hopping's Blister Beetle Mojave Desert Blister Beetle I Anthony Blister Beetle I Moestan Blister Beetle I Molestan Blister Beetle I Morrison's Blister Beetle	Antioch Dunes Beetle I Sacramento Beetle I	Cerambyx Longicorn Mojave Rabbitbrush Longhorn Beetle E Valley Elderberry Longhorn Beetle V Six-banded Longhorn Beetle I K Kude's Longhorn Beetle I E
Family Lampyridae Micronaspis floridana Photuris brunnipennis floridana	Family Anobiidae	Family Cucujidae	Family Tenebrionidae Coelus globosus Coelus gracilis Polposipus herculeanus	Family Meloidae  Lytta hoppingi Lytta inseperata Lytta mirifica Lytta moesta Lytta molesta Lytta molesta	Family Anthicidae Anthicus antiochensis Anthicus sacramento	Family Cerambycidae  Aeschrithmysus dubautianus  Aeschrithmysus swezeyi  Aeschrithmysus terryi Cerambyx cerdo Crossidius mojavensis mojavensis Desmocerus californicus dimorphus Dryobius sexnotatus Macrodontia cervicornis Morimus funereus Morimus funereus Nesithmysus frobesi Nesithmysus frobesi Nesithmysus swezeyi

E Hawaii E Central & Northern Europe Ex [Chatham Is]	I U.S.A.	E Hawaii	V New Zealand V New Zealand E Hawaii EX [Hawaii] EX [Hawaii]			~	V New Zealand R Henderson I.	I U.S.A. I Hawaii		Ex [Hawaii] I U.S.A. I Hawaii Ex? [Hawaii] E Hawaii	R Hawaii I Hawaii
Rosalia Longicorn	Bog Idol Leaf Beetle	Hawaiian Proterhinus Beetles	Flax Weevil Turbott's Weevil Oahu Nesiotes Weevil	Antioch Dune Weevil Lichen Weevil		Speargrass Weevil	Netson's Weevil	Rulien's Weevil Gifford's Weevil Kauai Weevil	Munro's Weevil	Lange's El Segundo Dune Weevil Windward Chain Weevils Blackburn's Weevil Obscure Weevil	Hawaiian Snout Beetles Nihoa Weevil
Plagithmysus (49 species) Rosalia alpina Xylotoles costatus	Family Chrysomelidae	Family Aglycyderidae Proterhinus (72 species)	Family Curculionidae  Anagotus fairburni Anagotus turbotti Deinocossonus nesiotes Dryophthorus distinguendus Dryotribus mimeticus	Oysticheus rotundicollis Gymnopholus lichenifer Hadramphus spinipennis Hadramphus stilbocarpae Hadramphus tuberculatus	Heterexis sericostatus	Lyperoblus huttoni Macrancylus linearis	Megacolabus sculpturatus Microcryptorhynchus orientissimus Miloderes nelsoni	Miloderes rulieni Nesotocus giffordi Nesotocus kauaiensis	Nothaldonis peaci Oclandius laeviusculus	Onchobarus <u>langei</u> Oodemas (Whole genus) Pentarthrum blackburni Pentarthrum obscura	Rhyncogonus hendersoni Rhyncogonus (22 species) Stenotrupis pritchardiae

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Brown-tassel Weevil Dorothy's El Segundo Dune Weevil Doyen's Dune Weevil Fort Ross Weevil Yorba Linda Weevil	Sugarfoot Moth Fly	Giant Torrent Midge Tasmanian Torrent Midge	Ross's Apatalestes Tabanid Fly Florida Asaphomyian Tabanid Fly Texas Asaphomyian Tabanid Fly Belkin's Dune Tabanid Fly Brown Merycomyian Tabanid Fly Volutine Stoneyian Tabanid Fly	Mary Alice's Small-headed Fly	Antioch Robberfly Antioch Robberfly Hurd's Robberfly	Valley Mydas Fly	Hawaiian Dance Fly		Delong's Flower Fly
Trigonoscuta dorothea dorothea Trigonoscuta doveni Trigonoscuta doveni Trigonoscuta rossi Trigonoscuta vorbalindae Unas piceus	Order DIPTERA Family Psychodidae	Family Blephariceridae Edwardsina gigantea Edwardsina tasmaniensis	Family Tabanidae  Apatalestea rossi Asaphomyia floridensis Asaphomyia texanus Brennania belkini Merycomyia brunnea	Family Acroceridae	Family Asilidae Cophura hurdi Efferia antiochi Metapogon hurdi	Family Apiocertidae Raphiomydas triochilus	Family Empididae Chersodromia hawaiiensis	Family Dolichopodidae	Family Syrphidae

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Nihoa Two-spotted Asterid Fly		Wilber Springs Shore Fly	Alexander's Caddisfly Castle Lake Caddisfly Obrien Caddisfly Fender's Caddisfly Haddock's Caddisfly Castle Crags Caddisfly Bilobed Caddisfly Spiny Caddisfly One-spot Caddisfly	Artesian Caddisfly Denning's Caddisfly Arkansas Caddisfly San Marcos Caddisfly	Knoxville Micro Caddisfly Kite's Micro Caddisfly Alsea Micro Caddisfly Contorted Micro Caddisfly Deschutes Micro Caddisfly Provost's Micro Caddisfly Vertree's Micro Caddisfly Florida Micro Caddisfly	Cascades Caddisfly Kings Canyon Caddisfly Blue Mountains Caddisfly
Family Asteiidae Bryania bipunctata	Family Drosophilidae	Family Ephydridae	Family Rhyacophilidae Rhyacophila alexandra Rhyacophila amabilis Rhyacophila colonus Rhyacophila fenderi Rhyacophila lineata Rhyacophila mosana Rhyacophila mosana Rhyacophila mosana Rhyacophila mosana Rhyacophila mosana	Family Glossosomatidae Agapetus Agapetus Agapetus Agapetus Agapetus Agapetus Protoptila arca	Family Hydrotilidae  Hydroptila decia Neotrichia kitae Ochrotrichia alsea Ochrotrichia phenosa Ochrotrichia provosti Ochrotrichia pervosti Ochrotrichia vertreesi Oxyethira florida	Family Philopotamidae Apatania tavala Cryptochia excella Cryptochia neosa

U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. U.S.A.	I U.S.A.	I U.S.A.	I U.S.A. I U.S.A. I U.S.A. Ex [U.S.A.]	V South Africa V Australia	Ex? [U.S.A.] Ex? [U.S.A.]	Ex? [U.S.A.]
Oregon Caddisfly King's Creek Caddisfly Green Springs Mountain Caddisfly Mount Hood Caddisfly Tombstone Prairie Caddisfly Missouri Caddisfly Klamath Caddisfly Fort Dick Caddisfly Colombian Gorge Caddisfly Tombstone Prairie Oligophlebodes Clatsop Caddisfly Three-tooth Caddisfly	Fischer's Caddisfly Goeden's Caddisfly	Zigzag BlackWater Caddistly	Florida Longhorn Caddisfly Vertree's Caddisfly Little Longhorn Caddisfly Athens Caddisfly	Silver Spotted Ghost Moth Bent Wing Swift Moth	American Chestnut Moth Phleophagan Chestnut Moth	Chestnut Clearwing Moth
Dolophilodes oregona Ecclisomyia bilera Farula davisi Farula jewetti Farula reaperi Glyphopsyche missouri Limnephilus alconura Limnephilus atercus Neothramma andersoni Oligophlebodes mostbento Philocasca oron Triaenodes tridonata	Family Lepidostomatidae Lepidostoma fischeri Lepidostoma goedeni Family Sericostomatidae	Family Odontoceridae Psilotreta hansoni	Family Leptoceridae  Ceraclea floridana Ceraclea vertreesi Oecetis parva Triaenodes phalacris	Order LEPIDOPTERA Family Hepialidae Leto venus Zelotypia stacyi	Family Nepticulidae Ectodemia castaneae Ectodemia phleophaga	Family Tischeriidae Tischeria perplexa

Намаії Намаії	[U.S.A.]	New Zealand	Намаїї	[U.S.A.]	U.S.A.	U.S.A. Hawaii Hawaii	U.S.A.	Central & North Europe Costa Rica, Panama Jamaica Dominican Republic	Australia U.S.A., Canada	U.S.A. South Africa	South Africa	U.S.A., Mexico	U.S.A., Mexico	U.S.A.
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Necker Leaf-miner Moth			Green Carposinid Moth	Chestnut Ermine Moth	Chestnut Clearwing Moth	San Francisco Tree Lupine Ohe Ohe Leaf-roller Moth Green-banded Ohe Ohe Leaf-roller Moth Wallupe Leaf-roller Moth	Busk's Gall Moth	Chequered Skipper Eight Spotted Skipper	Skipper Dakota Skipper	Pawnee Montane Skipper Barber's Ranger	Bamboo Sylph	Wandering Skipper	Salt Marsh Skipper	kare ok ipper
Family Gracillariidae Petrochroa neckerensis Phildoria wilkesiella	Family Coleophoridae	Family Gelechiidae Kiwaia jeanae	Family Carposinidae	Family Argyresthiidae	Family Sesiidae Synanthedon castaneae	Family Tortricidae Grapholitha edwardsiana Spheterista oheoheana Spheterista pterotropiana Spheterista reynoldsiana	Family Cochylidae	Family Hesperiidae Carterocephalus palaemon Dalla octomaculata Epargyreus antaeus Epargyreus spana		Hesperia pawnee montana Kedestes barerae bunta	chaca	errans	Panoquina panoquinoides errans	Problema bulenta

U.S.A. Romania, Southern U.S.S.R. Balkans, Southern U.S.S.R., Iran South Africa	U.S.A.	Philippines Sri Lanka Java Sulawesi Philippines	Mexico Hispaniola Bhutan China	China Brazil Brazil Jamaica	Sri Lanka Zaire Andaman Is Philippines Comoro Is	Bougainville, Solomon Is Philippines Bougainville, Solomon Is Sabah Philippines Moluccas	China Japan, Taiwan Moluccas Papua New Guinea New Guinea New Guinea
H H Y >	-	<b>→&gt;</b>	~>×~	x & > m > 0	×>××××>	~~~~~~	У <b>— — Ш — &gt; &gt; —</b>
Wandering Skipper Spinose Skipper Tessellated Skipper Dickson's Sylph	Maculated Manfreda Skipper	Sri Lankan Rose	Short-horned Baronia Zetides Swallowtail Ludlow's Bhutan Swallowtail Mansfield's Three-tailed Swallowtail	Chinese Three-tailed Swallowtail Yellow Kite Swallowtail Harris' Mimic Swallowtail Jamaican Kite	Sri Lankan Five-bar Swordtail Andamans Swordtail	Meek's Graphium	Chinese Luehdorfia Japanese Luehdorfia Queen Alexandra's Birdwing Chimaera Birdwing
Pseudocopaeodes eunus eunus Syrichtus cribrellum Syrichtus tessellum Isitana dicksoni	Family Megathymidae	Family Papilionidae  Atrophaneura atropos  Atrophaneura luchti  Atrophaneura palu  Atrophaneura schadenbergi			Graphium artiphates ceylonicus Graphium aurivilliusi Graphium epaminondas Graphium idaeoides Graphium levassori	Graphium meeki Graphium megaera Graphium procles Graphium sandawanum Graphium stresemanni	Luehdorfia chinensis Luehdorfia japonica Ornithoptera aesacus Ornithoptera chimaera Ornithoptera chimaera Ornithoptera meridionalis

I Irian Jaya K Irian Jaya R Sabah, Sarawak	Central U.S.A.	I Hispaniola V Philippipes			E Kenya V Mexico			Jamaica	E Corsica, Sardinia R Sulawesi		R Madagascar	_	k French Gulana V Bismarck Arch.					EX [Seyonerles]		V Brazil	R Brazil	K Brazil	K Bollvia D Europa & II S S D to China	F.R.G.	R Afghanistan, Tadzhikistan	1
Rothschild's Birdwing	African Giant Swallowtail Schaus' Swallowtail	Scarce Haitian Swallowtail	Poey's Black Swallowtail		Taita Blue-banded Papilio			Homerus Swallowtail	Corsican Swallowtail	Cream-banded Swallowtail				Madagascan Emperor Swallowtail		:	Papillon La Pature	Kilimaniaro Qualloutail		riuminense swallowtail	Hahnel's Amazonian Swallowtail		( - C			
Ornithoptera rothschildi Ornithoptera tithonus		Papilio aristor	1.01.	Papilio chikae	Papilio desmondi teita Papilio esperanza	1010	نسان	Papilio homerus	Papilio hospiton	7—			 Papilio moerneri		Papilio neumoegeni		phorbanta	Papillo phorbanta nana		Parides ascanius Parides burchellanus			Parides Steinbachi	Parnassius apollo vinningensis		

Ex [U.S.A.]  K China  R India to China  E Taiwan  I Sabah, Sarawak  V Sulawesi  Moluccas	I Canada, U.S.A. E South Africa I U.S.A. R Zimbabwe R India	V South Africa V South Africa R South Africa V South Africa V South Africa V South Africa	S	V South Africa V U.S.A. Ex [U.S.A.] Ex? [U.S.A.] I U.S.A.] I U.S.A.
Shepard's Clodius Parnassian Strobbeen's Clodius Parnassian Golden Kaiser-I-Hind Kaiser-I-Hind Talaud Black Birdwing	West Virginia White Andrew's Marble Butterfly	Lion's Head Copper	San Bruno Elfin Drakensburg Copper	Millar's Buff Florida Atala Hairstreak Texas Tailed Blue Palos Verdes Blue Xerces Blue Miami Blue Butterfly Mission Blue
Parnassius clodius shepardii Parnassius clodius strohbeeni Teinopalpus aureus Troides aeacus kaguya Troides andromache Troides dohertyi Troides prattorum	Family Pieridae Artogeia virginiensis Belenois orgygia Euchloe hyantis andrewsi Mylothris carcassoni Pieris krueperi devta	ycaenida aritacea edoni ntatis erides erides erides malagrida	Argyrocupha matagrida paartensis Callophrys mossii bayensis Capys penningtoni Chrysoritis cotrelli Chrysoritis zeuxo Cyclyrius mandersi Deloneura immaculata	Deloneura millari millari Deudorix penningtoni Deudorix vansoni Durbania limbata Erikssonia acraeina Eumaeus atala florida Everes comyntas texanus Glaucopsyche lygdamus palosverdesensis Glaucopsyche xerces Hemiargus thomasi bethune-bakeri Icaricia icarioides missionensis

I U.S.A. I U.S.A. E South Africa V South Africa Ex? [South Africa] V South Africa E South Africa	U.S.A. U.S.A. U.S.A. U.S.A. Europe,	V China, Japan, U.S.S.R. V China, Japan, U.S.S.R. E Europe, U.S.S.R. V South & Central Europe E Europe & Northern Asia E France R India R India I Mozambique, South Africa	E South Africa I U.S.A. I U.S.A. E Spain V South Africa I U.S.A. I U.S.A. I U.S.A.
Moro Blue Bay Blue Pheres Blue Wineland Blue	Lotis Blue Karner Blue Large Copper Clayton's Copper Hermes Copper Alcon Large Blue Large Blue	Greater Large Blue Greater Large Blue Dusky Large Blue Rebel's Large Blue Scarce Large Blue Scarce Large Blue Naga Hedge Blue	Dickson's Copper Tailless Blue Bohart's Blue San Emigdio Blue Mission Blue Nevada Blue White Spotted Sapphire El Segundo Blue Comstock's Blue Smith's Blue Langston's Blue
Icaricia icarioides moroensis Icaricia icarioides pheres Lepidochrysops ariadne Lepidochrysops bacchus Lepidochrysops loewensteini Lepidochrysops lotana Lepidochrysops lotana Lepidochrysops inethymna dicksoni Lepidochrysops ritei	arjor arior	Maculinea arionides matsumara arionides matsumara arionides matsumara maculinea rebeli maculinea teleius burdigalensis Notarthrinus binghami Oreolyce dohertyi	Oxychaeta dicksoni Panchala ganesa loomisi Philotiella speciosa bohartorum Plebejus emigdionis Plebejus icarioides missionensis Plebicula golgus Poecilmitis adonis Poecilmitis aureus Poecilmitis lyncurium Poecilmitis rileyi Pseudiolaus lulua Shijimiaeoides battoides allyni Shijimiaeoides battoides smithi Shijimiaeoides langstoni langstoni

3, 330, 0, 0, 0,	,	R Indonesia R Bismarck Arch. R Bismarck Arch. R Sulawesi R Java R Bismarck Arch. R Sulawesi R Sulames R Irian Jaya R Irian Jaya R Irian Jaya R Irian Jaya R India
Mattoni's Blue Bartram's Hairstreak Avalon Hairstreak Dickson's Thestor Kaplan's Thestor	ymphalidae: Danainae)	
Shijimiaeoides rita mattonii Spindasis collinsi Strymon acis bartrami Strymon avalona Thestor dicksoni dicksoni Thestor tempe Trimenia wallengrenii Uranothauma usambarae	ly Danaidae (or N comorana nossima pheodon priarea cubana laegeri pantheratus cleophile albicosta blossomae coofigurata corfigurata	Euploea dentiplaga  Euploea doretta  Euploea eupator  Euploea gamelia  Euploea lacon  Euploea martinii  Euploea mitra  Euploea tripunctata  Idea electra  Idea malabarica

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K Sulawesi R Irian Jaya R Indonesia R Indonesia R Java, Sumatra R Bismarck Arch. R Borneo R Philippines E Philippines R Bougainville, Solomon Is	R New Caledonia R Bismarck Arch. R Bismarck Arch. R Philippines R Sulawesi R Sulawesi R Sulawesi R Indonesia R New Guinea R New Guinea R Solomon Is R Solomon Is R Indochina, China, Malaysi	E Europe & Northern Asia R Bhutan, India V Italy, Switzerland I France R India R Southern Europe R France, Italy R France, Spain
Sulawesi Tree Nymph		(or Nymphalidae: Satyrinae) False Ringlet Raetzer's Ringlet Gavarnie Ringlet Ottoman Brassy Ringlet Larche Ringlet False Dewy Ringlet
Idea tambusisiana Ideopsis hewitsonii Ideopsis klassika Ideopsis oberthurii Parantica albata Parantica crowleyi Parantica dannatti Parantica davidi	@ @ @ @	Family Satyridae (or Ny Coenonympha oedippus Erebia annada annada Erebia christi Erebia gorgone Erebia narasingha narasingha Erebia ottomana Erebia sthennyo

V Europe R Burma, India R India R India R Bhutan, India R Bhutan, India R Bhutan, Burma, India R India R India R South Africa R Burma, India	I U.S.A.  I Madagascar, Mauritius, Reunion E Mauritius R Madagascar V U.S.A. Ex [U.S.A.] R Madagascar V South Africa V Tanzania V South Africa V Tanzania V Tanzania V Tanzania	×
Scarce Red Forester Dickson's Brown	Nymphalidae: Nymphalinae) Florida Leafwing Lange's Metalmark Uncompangre Fritillary Butterfly Sthenele Wood Nymph Silver Barred Charaxes Chestnut Rajah Western Forest Emperor Battling Glider	Andaman Leafwing Bay Checkerspot Butterfly Mono Checkerspot Butterfly Mottled Green
Erebia sudetica Lethe distans Lethe dura gammiei Lethe europa tamuna Lethe gemina gafuri Lethe margaritae Lethe margaritae Lethe ramadeva Lethe satyavati Pararge menava maeroides Stygionympha dicksoni	Family Nymphalidae (or Nymphalidae floridalis  Anaea floridalis  Antanartia borbonica Antanartia borbonica Antanartia borbonica Apaturopsis kilusa Apaturopsis pauliani Apodemia mormo langei Boloria acrocnema Cercyonis sthenele sthenele Charaxes cowani Charaxes durnfordi nicholi Charaxes durnfordi nicholi Charaxes karkloof capensis Charaxes wambarae Charaxes xiphares desmondi Charaxes xiphares desmondi Charaxes xiphares desmondi Charaxes xiphares ziphares Cymothoe alcimeda alcimeda Cymothoe maniensis Cymothoe melanjae Cymothoe melanjae Cymothoe teita	

Mauritius					Insects
France, Italy Ecuador, Peru Brazil Europe Tanzania Comoro Is, Madagascar, Mauritius Madagascar China, India, Sikkim	scar n Is scar lles	U.S.A. Madagascar, Mauritius Madagascar, Reunion [Mauritius] Japan, Taiwan U.S.A.	[U.S.A.] U.S.A. Canada, U.S.A. U.S.A. U.S.A. U.S.A. U.S.A.	Madagascar Madagascar Hawaii New Zealand Hawaii	Намаії
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Corsican Fritillary Natterer's Longwing Scarce Fritillary Pale Hockevsticker Sailer		Tawny Crescent Butterfly Salamis Retrecie Salamis Retrecie Smokey Eyed Brown Butterfly	Atossa Callippe Silverspot Silverspot Regal Fritillary Blue Silverspot Great Basin Silverspot Behren's Silverspot Oregon Silverspot	Hedyleptan Moths Blue Margaronian Green Margaronian	Ohenaupaka Oeobian Moth
Fabriciana elisa Heliconius charltonius peruvianus Heliconius nattereri Hypodryas maturna Hypolimnas antevorta Hypolimnas dubius drucei Neptis decaryi	Neptis metella gratilla Neptis nycteas Neptis sankara nar Neptis sextilla Phalanta philiberti	Phyciodes batesi Salamis angustina Salamis angustina Salamis angustina Sasakia charonda Satyrodes eurydice fumosa	Speyeria adiaste atossa Speyeria callippe callippe Speyeria hydaspe conquista Speyeria idalia Speyeria nokomis caerulescens Speyeria zerene behrensii Speyeria zerene hippolyta Speyeria zerene hippolyta	Family Acraeidae  Acraea hova Acraea sambavae  Family Pyralidae Hedylepta (14 species) Kupea electilis Margaronia cyanomichla	Oeoblia dryadopa

Tomily Comodulation			
Fletcherana joxantha	Ioxantha Looper Moth	₩ 2	Hawaii
Scotorythra megalophylla	Kona Giant Looper Moth	EX?	Austria [Hawaii]
Scotorythra paratactis Tritocleis microphylla	Nordian Glant Looper Moth Hawaijan Hopseed Looper Moth Ola'a Peppered Looper Moth	EX? EX?	[Hawail] [Hawail] [Hawail]
Family Lasiocampidae Eriogaster catax Phyllodesma ilicifolia	Small Lappet Moth	ш>	Austria, Belgium, F.R.G., Hungary Central & North Europe to Japan
Family Saturniidae Graellsia isabelae Saturnia pyri	Spanish Moon Moth Great Peacock Moth	> w	France, Spain Austria, Czechoslovakia, F.R.G.
Family Sphingidae Celerio wilsoni perkinsi Euproserpinus euterpe Euproserpinus wiesti Hyles hippophaes Manduca blackburni Proserpinus proserpina	Kern Primrose Sphinx Moth Prairie Sphinx Moth Blackburn's Sphinx Moth	ш > ш > <u>й</u> >	Hawaii U.S.A. U.S.A. Europe & U.S.S.R. [Hawaii]
Tinostoma smaragditis	Fabulous Green Sphinx of Kauai	Ex?	s
Family Noctuidae  Acronicta albarufa Agrotis crinigera Agrotis fasciata Agrotis kerri Agrotis photophila Agrotis procellaris Catocala marmorata Catocala mermorata Catocala mermorata Helicoverpa confusa Helicoverpa minuta Hydraecia petasitis Hypena laysanensis Hypena plagiota	Albarufan Dagger Moth Poko Noctuid Moth Midway Noctuid Moth Kerr's Noctuid Moth Laysan Noctuid Moth Marbled Underwing Moth Precious Underwing Moth Hebard's Noctuid Moth Confused Moth Minute Noctuid Moth Laysan Dropseed Noctuid Moth Hilo Noctuid Moth		Canada, U.S.A. [Hawaii]

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Ex? [Hawaii] 1 U.S.A. Ex [Hawaii] I Canada, U.S.A.	I Hawaii	I Hawaii	I U.S.A.	- 0 ×	I F.R.G., France I Europe R Central & Southern Europe V F.R.G. Italv		V Central Europe I Northern Europe I F.R.G., Switzerland	K Switzerland I Switzerland I Switzerland K Australia I F.R.G.	E Hawaii E Hawaii
Kaholuamano Noctuid Moth Lemmer's Noctuid Moth Ceromatic Noctuid Moth	Nihoa Eupelmus Wasp	Nihoa Sclerodermus Wasp	Antioch Mutillid Wasp	Sri Lankan Relict Ant Caucasian Relict Ant	Ravoux's Slavemaker Ant	European Red Wood Ant	Red Wood Ant Black Bog Ant	Goesswald's Inquiline Ant Australian Ant	Niihau Vespid Wasp Soror Vespid Wasp
Hypena senicula Lithophane lemmeri Peridroma porphyrea	Order HYMENOPTERA Family Eupelmidae	Family Bethylidae	Family Mutillidae	Family Formicidae  Anergates atratulus Aneuretus simoni Aulacopone relicta Camponotus aethiops Camponotus dalmaticus Camponotus fallax		Formica polyctena Formica pratensis	Formica transkaucasica Formica unalensis	Leptothorax goesswaldi Myrmica bibikoffi Myrmica slovaca Nothomyrmecia macrops Polyergus rufescens	Family Vespidae Odynerus niihauensis Odynerus soror

Hawaii Hawaii Hawaii Hawaii Hawaii U.S.A. Hawaii Hawaii Hawaii	Намаїї	U.S.A. U.S.A.	Moluccas		Equatorial Tropics Southern Hemisphere		North-east Atlantic North-east Atlantic, Mediterranean
$\square \square \square \square \square \square \square \square \mapsto \mapsto \square \square \square \square \mapsto$		н н	×		>>		Z C Z
Hawaiian Sphecid Wasp Puna Sphecid Wasp Short-foot Sphecid Wasp Brown Cross Sphecid Wasp Giffard's Sphecid Wasp Haleakala Sphecid Wasp Bidecoratus Sphecid Wasp Redheaded Sphecid Wasp Kauai Sphecid Wasp Shade-winged Sphecid Wasp Antioch Sphecid Wasp	Yellow-faced Bee	Yellow Banded Andrenid Bee Antioch Andrenid Bee	Wallace's Giant Bee		Peripatus (10 genera) Peripatus (12 genera)	Phylum ECHINODERMATA	European Edible Sea Urchin Purple Urchin
Family Sphecidae Deinomimesa hawaiiensis Deinomimesa punae Ectemnius curtipes Ectemnius giffardi Ectemnius haleakalae Ectemnius nesocrabo bidecoratus Eucerceris ruficeps Nesomimesa kauaiensis Nesomimesa sciopteryx Philanthus nasalis	Family Colletidae Nesoprosopis (57 species)	Family Andrenidae  Perdita hirticeps luteocincta  Perdita scitula antiochensis	Family Megachilidae	CLASS ONYCHOPHORA	Family Peripatidae Family Peripatosidae	CLASS ECHINOIDA	Order ECHINOIDA Family Echinidae Echinus esculentus Paracentrotus lividus

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